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**SUMMARY OF ASAP RESULTS
FOR APPLICATION TO STATE
AND LOCAL PROGRAMS
Volume I-ASAR Findings**

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16. Abstract <p>Deaths and injuries on the highway, even though America's accident rate is the lowest in the world, remain the nation's highest cause of unnecessary fatalities, and a good half of those losses are related to the drinking driver. In its attempt to reduce the toll, the United States is turning from solely technological actions to complex social engineering aimed at controlling the human factors in the drinking driving problem. The largest attempt has been the Alcohol Safety Action Program of the U. S. Department of Transportation's National Highway Traffic Safety Administration Started in 1970 and still continuing. This research was an analysis of the first 3.5 years of that program.</p> <p>Volume I analyzes the significance of "ASAP," and discusses its results in terms of its successes and failures and the new knowledge developed in the field of highway safety. The document is based on independent reading of the narrative and statistical reports generated by ASAP, and on experience and interview with operational, management, and research personnel associated with ASAP from 1970 to 1975.</p>			
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I. ASAP AND THE SYSTEMS APPROACH

A. Introduction

No matter how far the highway accident rate falls, accidents related to drinking drivers remain, in Robert Borkenstein's phrase, a "stubborn residue." Deaths and injuries on the highway are still highly significant among our society's unnecessary losses, even though America's accident rate is the lowest in the world, and a good half of those losses are related to the combination of drinking with driving. As the United States attempts to make some impact on that stubborn residue, it is turning from solely technological actions to complex social engineering aimed at controlling the human factors in the drinking-driving situation. The largest attempt has been the Alcohol Safety Action Program of the U.S. Department of Transportation's National Highway Traffic Safety Administration, started in 1970 and still continuing, though on a reduced scale.

The present document is an attempt to analyze the significance of "ASAP," to discuss its results in terms of new knowledge, concrete achievements, successes, and failures. This report is based on independent reading of the narrative and statistical reports generated by ASAP to date, and on experience and interviews with local personnel operating the 35 individual Alcohol Safety Action Projects, with NHTSA personnel responsible for overall Program Management, and with many researchers associated with ASAP between 1970 and 1975. Its purpose is to summarize knowledge gained from ASAP for the use of any person contemplating starting work on the systems approach to the control of drinking drivers which ASAP represented.

B. Alcohol Countermeasure Objectives

The principal objectives of the Alcohol Safety Action Projects were to:

- Demonstrate the feasibility and practicability of a systems approach for dealing with the drinking-driving problem and, further, to demonstrate that this approach can save lives.
- Catalyze each state into action to improve its safety program in the area of alcohol safety, and
- Evaluate individual countermeasures to determine their effectiveness.

Measuring whether or not a program has achieved all of these objectives is difficult. The original emphasis of ASAP was almost entirely on "the bottom line," i.e., a reduction in the number of alcohol-related deaths. As it slowly became clear that ASAP was not going to have anything like the impact of, say, the 1974 reduction in speed limits and traffic density, emphasis shifted to the other measures. The shift may have seemed (and may still seem) to result from the need for a bureaucratic program to justify its expenditures, but in fact the ASAP experience had taught all those who operated it that these other measures were just as viable and important in determining the achievement of an alcohol countermeasures program. It became clear that three criteria were equally important: efficiency, effectiveness, and fairness. These criteria are of course not new to social program evaluation, but their importance was new to the highway safety establishment, and it is through the interplay of the three that the significance of the ASAP concept emerged.

1. Effectiveness

Earlier systems for controlling drinking drivers have not generally been regarded as effective enough, and the Department of Transportation's 1968 Report to Congress demonstrated the

growing need for more and better programs. The Report also gave rise to the systems concept represented by ASAP and provided statistical support for attempting the "health/legal approach" advocated by several researchers (most notably Lyle Filkins). The systems approach and the health/legal concept required a much more complex effort than had ever been dedicated to drinking drivers before. It required cooperation between the legal system and the health system, two social mechanisms which cooperate very uneasily and rarely. It required a close working relationship between all elements of the criminal justice system (police, prosecutors, judges, and pre-sentence and probation staff). It required direct interaction among all three branches of government at the national level, the state level, and the community level. In retrospect, the choice of such complexity seems a genuinely massive step forward from the single-agency efforts which had characterized previous systems to control drinking drivers (e.g., stiffen the penalties by legislation, crack down through enforcement, conduct a national advertising campaign).

At the same time, however, several important studies pointed out that—as far as drinking drivers are concerned—highway safety simply could not expect immediate effectiveness from any program. The experience of implementing the ASAP concept gave operational personnel the same knowledge as the researchers. The main elements of that knowledge may be summarized as follows:

- Because the arrest rates are so low in comparison with the number of drinking drivers, it will take a long time for any system to intervene with enough drinking drivers to make any impact on the "bottom line" accident figures.
- Because the majority of drinking drivers do not have accidents in any given period, it will take a long time to reach those who are likely to have accidents.
- Because all agencies handling drinking drivers are complex changing organisms, it will take a persistent and long-term and flexible effort to keep them operating, no matter what kind of program they operate.
- Because of the social and psychological variations among people who drink addictively and/or abusively, no social response to their behavior can be simplistic.
- Because we know little about what action by what agency of the criminal justice system has what effect on what people (if any), all programs involving the criminal justice system contain large elements of experimentation.

To sum up then, "accident reduction" is a more distant goal than was at first realized. To demonstrate effectiveness, a program must operate for a considerable length of time. Finally and most important, the attempt to control drinking-driving must be a permanent social commitment, not a one-shot effort no matter how well funded or dramatic.

2. Efficiency

By no measure were previous systems for controlling drinking drivers efficient. Nationwide arrest rates were extraordinarily low—perhaps one arrest for each 2,000 incidents of drinking-driving. Accidents related to alcohol continued to rise, especially in ratio to all accidents. Costs of

processing drinking drivers were high, or if low, were associated with minimal effort. Few people handling drinking-driving cases liked them because at all stages they involved either cumbersome or ineffectual actions.

As will be made clear in the following chapters, ASAP made substantial gains in efficiency with most countermeasure areas. New methods for processing such cases were developed, at lower cost and with less difficulty. New models for control activities are now available for dissemination. In terms of activity levels, efficiency rose throughout, starting with an increase in arrests which forms a significant proportion of the national total and continuing with numbers of people flowing through various functions and units which did not exist before.

3. Fairness

In all drinking-driver control systems, all persons exercise the kind of individual discretion which can easily become social and legal inequity. All agencies have (and must have) discretionary power to make individual decisions. In previous programs, however, this discretion has tended to be arbitrarily exerted, with the result that various groups of people either complain or rejoice because they receive discriminatory handling, and various research studies have demonstrated the probable unfairness of control actions (e.g., police lacking equipment and therefore arresting only half of those stopped persons who are actually above the illegal BAC level; judges' decisions favoring those defendants represented by attorneys; wealthy people being allowed to select private medical treatment while poorer people are compelled to attend a public educational agency.)

Of course ASAP did not solve all these problems of fairness, or even approach solving them. They did, however, demonstrate their existence, tend to reduce their magnitude, and provide examples of how they may be overcome. Since the entire system for controlling drinking drivers, and the criminal justice system, depend ultimately on the public's perceptions of the systems' fairness and desirability, these results may later emerge as among the most important benefits from the national Program.

C. ASAP as a System

"Demonstrating the feasibility and practicability of the systems approach" was the part of the ASAP objective which was originally the least understood and operationally the hardest to achieve. Activity against drinking drivers had previously been seen as primarily the responsibility of legislation and police, and ASAP attitudes did not at first differ greatly from the traditional. The courts would take care of themselves, as they always had, with a little help to handle the increased caseload. The rehabilitation agencies would handle the persons referred, since this was their customary job. Highway safety would remain highway safety, and though cooperation between the courts and rehabilitation agencies would increase as they worked toward a highway safety goal, basically they would still do as they always had done.

What actually happened under ASAP was very different. Neither the courts nor the rehabilitation agencies knew how to handle drinking-driving cases purposefully, even when provided with extra resources. And as ASAP itself became more and more engaged in the design of court systems and rehabilitation responses, its original image as an enforcement program lessened. The courts slowly came to regard ASAP as a concept of criminal justice, as a method for court operations, as a model for misdemeanor court functioning. The rehabilitation agencies simultaneously came to regard ASAP as a huge new case-finding system, as a treatment modality of its own, as an attitude toward alcohol abuse substantially new to the field of alcoholism and surprisingly effective. In the opinions of most agencies which cooperated, ASAP was far removed from highway safety.

ASAP now seems to be emerging as a kind of community action program, but one of a rather different nature from other such programs. Rather than providing services to citizens and demanding "extra" resources from government, ASAP seems to be popular with local government because it is improving already existing agencies and saving money while doing the tasks of public safety and public health better than they had been done before.

D. Summary

The Alcohol Safety Action Program did demonstrate that:

- A coordinated and integrated systems approach is feasible and practical in producing a health care delivery system, one in which the functional alcoholic can be identified as a problem drinking driver and efficiently processed through the court system into a rehabilitation program.
- Implementation of the systems approach requires extreme degrees of cooperation and understanding among the highway safety system, the criminal justice system, and the health care delivery system.
- States can be catalyzed into action to improve their safety program in the area of alcohol safety (Appendix A).
- As will be shown in the sections of this report dealing with costs (Volume II), an alcohol countermeasures program can be run at minimal cost to a community, that it is not a social program which requires large investment of the general taxpayer's money.

The Alcohol Safety Action Program did not demonstrate that:

- The systems approach could produce an immediate and dramatic reduction in alcohol-related highway deaths at all project sites (Appendix B).
- Individual countermeasures were optimally designed; for example:
 - ASAP did not discover the optimal or the maximum arrest rate for deterring drinking-driving, though a handful of ASAPs may have done so without knowing it.
 - ASAP did not design a model court system that would operate automatically, without extra personnel of high motivation.
 - ASAP did not invent education and rehabilitation modalities that would reliably prevent recidivism.
 - ASAP did not design a system and personnel that would convince all communities to pick up the whole program with local funds.
 - ASAP remained vulnerable to policy changes within any or all of the agencies which it coordinated.

- ASAP did not discover which sanctions by the system will prevent which drinking drivers from repeating this behavior.

In terms of an immediate reduction in highway deaths related to alcohol, ASAP was not a uniform success. A few of the ASAP sites showed statistically significant accident reductions, but the majority were unable to prove impact on fatal crashes. However, in terms of knowledge of what a full alcohol countermeasure program must be, especially at the community level, ASAP produced substantial achievements of interest to all responsible members of the health care delivery system, the criminal justice system, and city and state government. ASAPs are not just highway safety programs. They are community action programs which require as much energy from their managers as alcoholism does from its victims.

II. ASAP MANAGEMENT

A. Background

With approximately \$2 million flowing to each ASAP jurisdiction, the National Highway Traffic Safety Administration paid considerable attention to the structure and personnel for effective management both of and by the ASAP. The structure, the funding, the politics, and the dynamics of each jurisdiction dictated a variety of choices, and some worked better than others. NHTSA has summarized its own judgments in the *1972 ASAP Evaluation Report* (Chapter 1, "Development and Management of the ASAP Program"), and this analysis is worth careful study. In addition, newer ASAPs funded by Sec. 402 funds through the states are making different choices for which no overall evaluation has been conducted. The following discussion should therefore be taken as no more than general guidelines susceptible to variations according to the local situation.

B. The ASAP Management Approach

1. The Nature of ASAP Management

An ASAP staff has no line authority over the countermeasure agencies, other than that sufficient to fulfill contractual relationships. As "manager" of the whole system, it has the following functions:

- *Coordination.* Working with all agencies and branches of government, ASAP is the one neutral agency with wholly a highway safety objective. It not only sets up liaison between the countermeasure areas but also attempts to have them change operations in order to solve each other's problems. The ASAP objective is to establish an integrated system in which all agencies share objectives as well as possessing their own.
- *Education.* ASAPs provide education and training to the members of countermeasure agencies as well as to the public. They are the main channels for information from outside the local jurisdiction, accomplishing a broader understanding of the nature of alcohol safety problems and their potential solutions. They are a channel for information from one agency to the others, seeking to produce the better understanding without which the system will fail. It is particularly important that ASAP staff communicate freely with ASAPs in other jurisdictions, with specialists in criminal justice system operations, with the various federal agencies possessing expertise in their areas of interest, and with the portable training packages already developed and validated.
- *Motivation.* While no one is opposed to highway safety, it is not the highest priority in any countermeasure agency. ASAP can motivate the agencies to take necessary actions, at least by its presence, at best by its assistance, at worst by overt pressure. Alone in the system, ASAP represents exclusively the public interest in highway safety, and its powers of suasion are considerable.
- *Information.* Since the flow of information between agencies is either incomplete or inaccurate or ignored, ASAP can provide the vital system function of creating and

maintaining continuity. The information may concern individual offenders or offenders as a group. It can supply data about the agency's own operations or those of other agencies; for example, arrest rate, court backlog, rehabilitation attendance. Without an ASAP management unit, this information will not exist.

- *Evaluation.* ASAP can provide information on either a generalized or a case-by-case basis as to whether the agency's or the system's operations are effective, whether the chosen procedures are efficient, and whether what they are doing is accomplishing anything.

The nature of the ASAP management function has been aptly described by NHTSA in discussing the use to which ASAP puts its information system: "A well-defined structured management information system consisting of daily and weekly feedback from the countermeasure agencies—supplemented by monthly data feedback from the project evaluator, coordinators, and participating agency representatives—appears to provide significant benefits. Regular feedback of management and evaluation information to the participating agencies should be practiced in order to promote meaningful cooperation and the free flow of information within the project system. Where change or compromise of established techniques or performance criteria used by countermeasure agencies is required, the rationale for such change should be carefully explored and explained to the agencies to assure acceptance and effective implementation."

2. The Phases of ASAP Management

One of the major difficulties with ASAP management is that its nature changes during the course of the project. The following distinct phases are discernible:

- *Planning.* Before the project goes operational, a planning period of at least 6 months is essential. During this time, the construction of either a proposal for funds and/or a detailed plan of operations is constructed. Detailed commitments and work statements must come from the countermeasure agencies. The data system must be analyzed and performance criteria and objectives developed. The existing system must be described in detail, deficiencies identified, and the general thrust of the program specified. This phase should result in a specific plan for performance with scheduled milestones.
- *Implementation.* ASAPs tend to come into existence piecemeal, though there is nothing inevitable about this process. Decisions must be made as to when each countermeasure is to start operations. (For instance, it may or may not be wise to start with increased enforcement; it is certainly unwise to allow rehabilitation countermeasures to be delayed.) Several ASAPs found that one or more countermeasure areas started quickly, while others caused the system concept to collapse by not being ready to move the flow of cases. Implementation may, therefore, take some months, and almost certainly the deficiencies in the plan will not show up until the number of cases increases. At this point, ASAP management shifts from steady planning to emergency responses and the need for constant monitoring and change of operations.
- *Operations.* There is no stable operational situation. The systems concept is vulnerable to change in any one countermeasure area or to extraneous events. While basic underlying problems (such as the data flow) are worked out slowly but surely, other

problems may arise overnight or unexpected weaknesses in the system may be revealed. If the implementation phase takes a year or more, operational management will continue an active concern for at least another year before the system can be said to be fully operational, and constant active monitoring is needed. ASAPs do *not* run themselves once they are successfully implemented.

- *Continuation.* The experience of either the federally-funded ASAPs or the state-funded ASAPs has not yet been long enough to determine whether the systems approach can become a permanent entity. The tendency is for one or another countermeasure to begin a slow decay as an agency changes its priorities. On the other hand, the benefits to most agencies' own objectives are so considerable that a majority of ASAPs have been continued by local funds. Efforts should go to built-in incentives as the ASAP unit itself retreats from direct operational responses to the most basic management functions listed above.

C. ASAP Management Findings

1. Management Staff Location

ASAP management may be located in either state, county, or city governmental units. Each choice will give the ASAP a significantly different relationship to the agencies and people actually handling DWI cases. In all cases there should be a clear channel of communication from ASAP personnel to (a) the Office of the Governor's Representative for Highway Safety, and (b) the Regional Offices of the National Highway Traffic Safety Administration. Some ASAPs suffered through being isolated from the flow of either technical or management information available through these sources; others suffered through receiving conflicting instructions from the various authorities above them.

An ASAP is essentially a local community phenomenon since it coordinates the activities of existing agencies within a specified geographical area. The location of the ASAP may therefore properly be influenced by the size of the driver population and by the agencies already handling that driver population. That is, a large metropolitan area will alone provide work enough for an ASAP staff because of the numbers of people involved. Transjurisdictional ASAPs are difficult to manage because of the lack of continuity between local agencies. For example, an ASAP dealing with six counties will have to deal with all criminal justice agencies operating independently within those counties, and also with any independent municipalities within the counties. Or again, an ASAP spreading over the boundaries of city and county governments may find itself operating two different systems within the same metropolitan area because of differences in city and county government. This creates special data problems, which need to be balanced against geographical equity.

Management of local programs from an ASAP located in a state structure is similarly difficult, and most "statewide" ASAPs found it desirable to transfer their responsibilities as soon as possible to people within various local jurisdictions. If located within a local governmental structure, the ASAP may have difficulty with statewide agencies (driver licensing authority or state highway patrol) because it departs from practices common in other areas of the state. If, however, state legislation calls for establishment of a statewide ASAP concept, then consistency can come only through a state-agency ASAP seeking consistency from jurisdiction to jurisdiction as the local programs feed into the state structure.

The complexity of the ASAP concept requires that the ASAP staff work on almost a daily basis with the local criminal justice system; the issues are too detailed to allow management

from a distance, monitored only by reporting requirements. To implement change, the ASAP must grow familiar to local personnel and with local daily problems. But the ASAP must also have access to state-level authorities where only actions by these authorities will allow change to take place.

Within state or local government, existing ASAPs are located in a wide variety of agencies: Division of Motor Vehicles, Department of Public Health, Office of the City Manager, Department of Public Safety, etc. Location within an agency which is also a representative of a single countermeasure area has its perils. First, the ASAP tends either to represent primarily the concerns of that agency, or, almost as difficult, to be *seen* as representing primarily those interests. Second, few individual agencies can get intimate access to the operations of other individual agencies without raising anxieties about domination or undue influence—especially when the executive and judicial branches of government are cooperatively involved. NHTSA makes a relevant comment: “No single type of local or state agency appears to be best suited to managing a project. However, experience has indicated that overall project objectives are probably best supported during the planning, operations, and continuation phases by selecting a governmental unit which has overall responsibility in the areas of traffic safety, public health, and court operations.”

ASAP is essentially a community-wide program rather than one which belongs to any single interest. Each countermeasure agency will support ASAP as far as ASAP serves the needs and objectives of that agency, with secondary regard to highway safety or public health objectives. This suggests that ASAP be located within, for example, a city management office where the general overview will keep the individual agencies in harmony and the overall objectives of ASAP to the fore. NHTSA came to a similar conclusion: “The prominence of the prime contractor and the managing agency, as well as project sponsorship by a high-ranking official, are critical ingredients which positively influence project potential. This is due to the fact that a successful project must blend a broad variety of existing, and sometimes autonomous, community activities into a cohesive program.” ASAP’s systems approach can be undermined if one autonomous agency refuses to cooperate. The managing agency should have status and influence. Finally, ASAP should be located close to the community’s funding authority. A single countermeasure agency cannot influence the budgets of other agencies and has difficulty in creating a systemwide budget. Access to the officials who oversee the budgets of all cooperating agencies is more likely to ensure the permanent operation of ASAP activities, including the continued funding of the management unit itself.

The two agencies with the most authority throughout the system are (1) the courts and (2) local government. The courts have considerable power to raise the performance standards of the countermeasure agencies, and there tends to be a strong association between success for an ASAP and leadership provided by judges and prosecutors. Few local court systems, however, have the administrative agents needed to manage the program, and there may be difficulties with relationships to the executive branch. Local government units have the status and authority necessary, and the important overview responsibilities for all areas of countermeasure operation, but either politics or finances can make an ASAP vulnerable to neglect or exploitation.

2. Management Staff Size

The number of persons directly employed by ASAP varied from four to more than thirty (as a temporary measure). In some cases, ASAP funds were used directly to pay for persons performing a function under a countermeasure agency’s authority, but the usual method was for ASAP to consist entirely of a management and coordinating staff, its size dependent on the size of the area’s population but never very large.

The most important individual is the project director. He or she has direct responsibility for all management decisions and for all negotiations with local, state, or federal officials, with the support of higher officials when necessary. The project director needs expertise in community-wide programs and governmental management. He or she needs knowledge of alcoholism, highway safety, the criminal justice system, public health information, and education. Very few people have this expertise before they start the job, and once the program is operational, it becomes difficult to find a replacement director. Temporary assignments to the post are not desirable. The project director should also be given a status sufficient to deal with the heads of the countermeasure agencies and to influence their policies and practices. In most communities, the director's job is too large for one person, and a deputy director has been appointed with special skills in fiscal management, or public information and education, or data systems.

Existing ASAP directors came from a wide variety of professional backgrounds. The more successful directors tended to come from the local community and already to be familiar with some aspect of local government operations, but this was not universally so. The job tended to attract public health professionals, especially those with a combination of experience in working with both alcoholism and public management. Other directors came from the military, the legal profession, highway safety, city management, and the clergy. Personal skills were very important (especially patience), and experience with either public health management or criminal justice management seems the other prime qualification. The job, however, is eclectic, and flexibility is essential, with the result that newcomers succeeded where those who were accustomed to "going by the book" did not.

Almost all of the original ASAPs also hired countermeasure coordinators, each with the special responsibility for day-to-day liaison with a countermeasure area. Most popular were coordinators for enforcement, the courts, rehabilitation, and public information and education. NHTSA reports: "In those instances where unusually good overall project coordination has been observed, the following characteristics have been identified: Project coordinators have frequent and detailed contacts with the participating agencies and the project director; the project coordinators have a high degree of knowledge of the day-to-day operations of the agencies in their assigned area; the coordinators regularly monitor the performance of the agencies to ensure compliance with the contractual statement of work; they identify actual and potential problems and make recommendations for solutions directly to the agencies after consultation with the project director; they propose improvements in procedures and technologies consistent with overall project objectives and total system design; and the rationale for change or compromise of established agency techniques and performance criteria are carefully explored and explained to the agencies in an attempt to assure acceptance and effective implementation."

Particularly if ASAP does not hire coordinators, it is necessary for each countermeasure agency to designate someone on its own staff as countermeasure coordinator. He or she becomes the project director's main source of information and also represents the agency in dealings with other agencies. Several ASAPs found it productive to move from ASAP-staff coordinators to countermeasure agency coordinators after the project had overcome its original problems, which helps guarantee the continuation of ASAP activities as a regular part of the agency's responsibilities. The only countermeasure which will not be represented by an agency is Public Information and Education, which remains a task of ASAP management.

Finally, an ASAP requires a management information specialist. The existing ASAPs have both evaluators and evaluation coordinators, since evaluation used an average of 15 percent of the

budget and was a prime objective of the national program. NHTSA believes that this level of evaluation is not feasible for locally funded projects, but all operations of an ASAP require an efficient management information system to maintain both information flow and the measures that will provide a bottom-line evaluation. The tendency of all records throughout the system for drinking-drivers is toward incompleteness and/or inconsistency serious enough to harm the project. Most ASAPs will require a data specialist initially to analyze the information systems, identify inadequacies, and assist with improvements.

3. Federal and Local Funds

The original ASAPs received large infusions of NHTSA money, but direct federal funding proved a mixed blessing. Some communities refused an ASAP at the start on the grounds that (a) there were too many federal requirements, and (b) they would be forced to pick up the substantial funding at the end of 3 years. Collateral funding for rehabilitation came from the National Institute on Alcohol Abuse and Alcoholism.

Communities which accepted the federal funds used them for the following purposes:

- *Purchase of equipment (e.g., police vehicles, breath-test instruments) and office space.* In this regard, they seem to have been following the tradition established by LEAA, shifting the weight of capital purchases to the federal government in a variant of revenue sharing.
- *Purchase of new manpower.* This included police officers, probation and pre-sentence staff, prosecutors, judges, and DWI school staff added to existing staff. Normally and for at least 3 years, this staff handled drinking-driving cases exclusively or primarily, but many jurisdictions used the lines opened by federal funds to expand their operations into the permanent budget, an excellent example of communities using federal funds to start a new operation and to motivate the local jurisdiction to continue funding.
- *Support for existing staff.* In some jurisdictions, federal funds purchased the time of existing staff, especially police, but including prosecutors, judges, and pre-sentence or probation staff. Justified by reference to the increased caseload, this practice was often successful but controversial. Before entering into such agreements, an ASAP director will need to judge the degree of commitment he has received from each agency since some tend to accept the funds but not the responsibility.
- *Management and evaluation.* Without federal funds, local jurisdictions do not allocate enough funds for these purposes, which are an important function for an ASAP. In other words, the federal money bought both functions and levels of expertise that would not otherwise have been available to a community.
- *Training.* Federal funds bought training that would otherwise not have taken place, though some jurisdictions preferred their training to be in-house. The federal support for training for judges, pre-sentence and probation staff, and police officers was well used, that for prosecutors less well. There is reluctance among judges and prosecutors to undergo training, which needs to be tailored to the site. Without

federal funds, training for most people would consist entirely of on-the-job training and listening to talks by the ASAP staff, neither of which is the most desirable education.

Community attitudes toward the presence of federal funds was less clear when it came to implementing changes in agency operations. Some communities welcomed the opportunity to make changes they regarded as improvements, and in every ASAP community there were at least two such agencies. Many agencies did not want to accept federal "control," which included both changes in their operations and reporting responsibilities. On the other hand, federal "clout" proved very effective in some cases where an agency was stalling a whole ASAP. Attitudes also varied according to which agency was administering the ASAP (a Department of Motor Vehicles, a health delivery agency, the city government), reflecting local attitudes toward that agency and its role in the system as well as toward federal money.

D. Conclusions

Federal funds created both ASAP systems and ASAP functions which would not otherwise have existed, and they accomplished the management and support functions that would have been neglected without them. Operations of the criminal justice system will continue without federal funds, but in a less efficient, thorough, and equitable manner. The vital support functions of management, evaluation, and training would not occur at an adequate level in most communities.

The location of the ASAP unit within a community's management structure should be carefully chosen. In particular, a direct line to the political and budgetary authority is essential.

Regardless of federal funds, some hard match by the local community is desirable, as the real measure of community commitment. Federal funds may justifiably originate new operations or supplement the improvement of existing operations, as a form of capital investment, but the transition to embodiment in local budgets should be as rapid as possible.

Some countermeasure agencies are unaware of alternate funding sources (especially the Law Enforcement Assistance Administration) and do not keep current with federal legislation which encourages joint operations between the public health system and the criminal justice system. Efforts should be made to coordinate and stimulate the funding efforts of local agencies with both state and federal opportunities. Special strengths can come through working with the Intergovernmental Programs Administrator located in many local governments.

Both federal and local funds should be used to ensure that the system is current with the latest developments outside the community. The field of alcohol safety suffers badly from publication lag, with the result that local persons waiting for the results of published research often unnecessarily reinvent expensive wheels. Attempts to stay in touch with current developments by attendance at national meetings, conferences with federal agencies, and the use of outside consultants should be encouraged, even if they do not seem cost effective at first glance.

Operation by contract and subcontract, monitored by performance criteria, seems beneficial. Management by objective seems thoroughly feasible in determining the level of activity, the efficiency, and perhaps the effectiveness of an ASAP system. Funds loosely given, however, tend to be loosely used by the countermeasure agencies.

The single incontrovertible recommendation concerning ASAP management is the need to create a professional, respected, full-time management unit. The presence of coordinating councils and advisory committees is often beneficial, but it is no substitute for full-time responsibility and clear lines of authority. Some smaller ASAPs are operating without the provision of large extra funds to the countermeasure agencies, and solely as the result of the funding of a high-quality ASAP unit. No ASAP operates effectively if the ASAP unit crumbles, no matter how large the supply of external funds.

III. ASAP ENFORCEMENT COUNTERMEASURES

A. Background

The number of arrests for drinking-driving nationwide is extraordinarily low in relationship to the number of incidents of drinking-driving. Roadside surveys show that for each arrest there are approximately 2,000 violations. Although more than 1 million drinking-driving arrests per year are being recorded, in the average jurisdiction each officer makes only about two alcohol-related traffic arrests per year. Drinking-driving arrests are the second largest category of criminal arrests reaching the courts, but this great volume does not even approximately reflect the number of violations. While some communities historically have high arrest rates and arrest volumes, they are the exception. The average pre-ASAP arrest rate was 5 per 1,000 licensed drivers per year. Most police departments admit freely to making fewer arrests for drinking-driving than they could, and any police department can increase the number of arrests by changes in policy, patrol procedures, and resources. When surveyed by ASAP staff, police officers report that for every individual they arrest, they let pass some five to ten individuals whom they believed to be impaired enough to justify an arrest. The principal justifications offered for the low enforcement ratio are the lack of resources, the higher priority of crimes against persons and property, and the failure of the courts to follow up effectively.

Traditionally, highway safety programs of all kinds make "increased arrests" a staple objective. Previous national campaigns have aimed at increasing the number of drinking-driving arrests, and numerous local jurisdictions have launched short special campaigns, especially around holiday seasons. Other safety projects funded by the U.S. Department of Transportation (e.g., FARE, STEP, SAFE) also tend to pick up drinking drivers. The norm has been a short-term "crash" project aimed at reducing accidents by using enforcement for increased intervention and general deterrence. In asking the police to increase arrests, therefore, ASAP asked nothing unfamiliar. Many urban police departments and state highway patrols are accustomed to a federal approach which provides funds in return for a larger arrest volume, and federal highway safety experts are comfortable with an enforcement-based program. Although many police departments exhibit a mild scepticism about the frequent changes in national priorities as reflected in changed targets and abandoned programs, most departments also reported agreement with NHTSA's concern about the over-involvement of drinking drivers in accidents. The professionalism of both groups therefore made cooperation likely.

An ASAP effort to increase the number of DWI arrests nationwide was and is therefore justifiable and realistic. Significantly, however, ASAP departed from the norm of highway safety programs by asking for a permanent rather than a temporary increase in arrests. The choice proved singularly important, for the following reasons:

- It reflected an earnest attempt to find out what level and pattern of arrests would have an effect on highway accidents. As soon as analysis of the effects of the British Road Safety Act of 1967 became available, this attempt took on an extra value, because the British experience seemed to show that the accident rate would fall if the public *believed* that the arrest rate was high. To find out what arrest rate would create that belief in the public and therefore actually deter accidents became an important (if late) possible objective for ASAP.
- It sought to contest two widespread beliefs: that the enforcement rate was already high enough to pick up most offenders, and that it would be too costly to increase the arrest

rates. By proving that the offenders were always out there, ASAP could make it hard to deny the legitimacy of a continuing, funded effort, with high priority in police budgets.

- It sought to discover the real causes for the nationwide low arrest rate instead of stopping with the conventional explanations of lack of resources and low priority. By providing resources and motivation, ASAP challenged police departments to discover and solve underlying problems.
- It encouraged police departments to adopt a "system" attitude and cooperate with other agencies in that system. A brief program oriented only to enforcement can always be digested by the system given time. A prolonged high arrest level forces all agencies to face the issues which help keep arrest rates low and are beyond the control of the police agencies: prosecution policies, low conviction rates, repeat offenders, poor driver records, etc. Such issues do not normally arise in short enforcement-oriented programs because they require difficult liaison with prosecutors, judges, and driver licensing authorities at both the policy and the operational level. They had to be faced during a 3-year program, however, if the system was to keep functioning.

ASAP therefore had the potential to produce significant research findings of permanent use in planning enforcement strategies, and to develop procedures and criteria of use to all localities wishing to improve their enforcement tactics. The results were useful, but were not definitive in all areas of enforcement activities.

B. The ASAP Enforcement Approach

The ASAP enforcement effort stated its objectives in a traditional but clear fashion: to identify, apprehend, and channel offenders into the judicial system so that judicial sanctioning may operate to minimize recidivism; and to optimize the arrest activity in order to instill a high perception of the risk of being apprehended so as to produce a general deterrence of drinking-driving.

Of all federal dollars for the 35 ASAPs, almost one third went toward increasing and improving police efforts. Local funds continued to be expended at regular rates. Thus the entire ASAP concept was grounded in a traditional approach to enforcement activity. As NHTSA wrote, "It is absolutely fundamental that this activity be stepped up dramatically." The increases in alcohol-related traffic arrests were suitably spectacular. In aggregate, the ASAPs funded to start in FY 1970 increased arrests 65 percent in 1971 and had a further 42-percent increase in 1972. The 21 FY 1971 ASAPs increased arrests 135 percent during 1972 and a further 44 percent in 1973. A doubling of arrest rates was usual, and some sites tripled previously low rates.

In the beginning, the ASAP approach saw the police as lacking in three areas:

- Sufficient enforcement personnel and equipment assigned to the detection of drinking drivers
- Proper training in modern methods of detection and apprehension
- Concentrated efforts at times and places where the greatest number of alcohol-related crashes and arrests occur.

ASAP responded to these needs in the following major ways:

- Funds for special equipment used in patrol and in testing
- Funds for increased patrol hours
- Funds for special training, and special training programs
- Analysis of accident and patrol patterns
- Assistance with legislation designed to smooth the arrest process
- Assistance with paperwork, statistics, and other data
- Liaison with prosecutors and judges.

ASAP also made specific recommendations as to the use of personnel and the development of operating procedures, aimed at supplementing or bolstering police efforts:

- Use of preliminary breath screening tests, as permitted by law;
- Special enforcement efforts at times (9 P.M.-3 A.M., weekends and holidays) and places where the greatest number of accidents and alcohol-related offenses occur;
- Operating procedures to ensure apprehension and surveillance of persons whose driving privileges have been revoked or restricted. This function requires the rapid availability and use of current driver suspension-revocation listings from driver licensing agencies;
- Operating procedures to train police officers in the use of breath-testing equipment and other alcohol safety enforcement tools (video equipment, audio and visual, and mobile test vans);
- Systems to simplify the apprehension procedures (paperwork, testing, incarceration), so that the law enforcement officer can spend more time on patrol.

These responses show a clear mixture of traditional and innovative elements, coupling direct support of operations with attention to the system implications of any action and the effects of a change in other components of the system on the enforcement effort.

C. ASAP Enforcement Findings

All enforcement efforts were undertaken under contract rather than grant, and the contracts included performance estimates. These estimates were not "quotas," though such a suspicion lingered in many jurisdictions. They were estimates by the departments of how many arrests they could make given certain resources, and in a typical ASAP they were in fact exceeded without much difficulty. Police agencies began to increase arrests even before all contracted equipment had arrived. Those few departments which failed to increase their arrest rates seem to have been acting under a policy decision rather than through lack of capability. The contractual arrangement gave ASAP considerable influence with police departments, and where that influence did not exist, contractual arrangements were in fact cancelled, though at a late date.

The contractual arrangement allowed ASAPs to have an unusually persistent and flexible relationship with police departments. If arrest rates began to slip, or if management information showed that enforcement patterns or procedures should change, the ASAP and the police usually cooperated in experimentation. Few highway safety agents have had such influence on police department policy, and many police officers commented favorably on their improved access to information and expertise designed to enable them to improve their own functions.

Ultimately, of course, the ASAPs remained dependent upon police departments rather than the other way around, and several ASAPs had trouble because of lack of the desired degree of cooperation. The general attitude, however, was that ASAP and police objectives were very much in harmony, so that debate was spent more on how increases would be achieved rather than whether they would be or not.

The experience of the ASAPs with the various approaches has resulted in some clear recommendations as to where to place one's emphasis, what to expect, and where not to waste effort.

1. Equipment Procurement

ASAPs provided funds for capital expenditures in several areas, with the following results:

- *Patrol cars.* Patrol cars represent a heavy item of capital expenditure with a fairly short life (2 to 3 years), but most ASAPs purchased vehicles for their police departments. This was partly because NHTSA is accustomed to funding vehicles for national-level demonstration projects, and partly because some police departments make the purchase of extra vehicles a condition of participation in such projects. Although some ASAPs did not purchase vehicles, any site wishing to increase patrol activity substantially may expect to provide funds for this purpose. However, this is not the sole method for increasing arrests.
- *Breath-test equipment.* All police agencies needed more and newer breath-test equipment and only a few (such as Los Angeles) were already following their own strong initiative. Preferred equipment varies widely according to the resources and opinions of the local police department. The purchase of better breath-testing equipment resulted in more accurate tests, improved evidence and pre-sentence information, reduced volume of blood tests, better police training, reduced arrest time, improved morale, and sometimes in a better rate of "satisfactory outcomes." Beneficial effects tended to spread through police operations and on to court action, affecting the operations of prosecutors and judges, with a tendency from all agencies to pay greater attention to the BAC and to the quality of records. Judges and juries in many sites wanted the new generation of "tamper-proof" equipment, including an automatic printout of the BAC reading. This seemed to increase their faith in breath-testing, though there is only anecdotal evidence to show that the increased credibility affected dispositions.
- *Screening breath testers.* Several sites tested the new preliminary or screening breath-testers developed since 1970. Although most sites did not have the appropriate legislation, preventing nationwide testing of the devices, results in the experimental sites were definitely positive. They showed tendencies toward increased number of arrests, arrests at lower BACs, and shorter processing time. The instruments are much more accurate than the traditional psychomotor tests at detecting impairment.

All ASAPs seem to have regarded the purchase of breath-testing equipment as a justifiable, necessary, and worthwhile expenditure, especially because it is exclusively related to drinking-driving cases.

- *Mobile vans.* Several ASAP's purchased Breath-Testing and Booking Vans at considerable expense. Containing laboratory breath-testing equipment, specially trained officers, and other facilities for the booking process, these vans acted as mobile booking and testing stations. Most police departments liked the vans for varying reasons, which included reduced time taken from patrol, improved accuracy of tests and procedures, reduced waiting time before and during testing, increased enforcement visibility, decreased time of lone officer with offender, reduction in driving time (from arrest site to testing site), reduced crowding at booking center, and improved testimony from breath-test operators.

The ways in which the vans were used varied considerably. Some traveled to the scene of the arrest. Others were parked in outlying regions. Some were used exclusively for arrests, while others also served educational purposes. They tended to be both popular and cost effective where (a) reductions in time lost from patrol could be shown; and (b) where they reduced substantially the distance from arrest site to testing site, notably in rural areas. Some police officers (especially in mild climates) reported that smaller, cheaper vans would be as effective in implementing the mobile concept, and NHTSA seems to have judged their purchase *in the proper circumstances* to be a worthwhile expenditure.

- *Videotape equipment.* A popular idea at the beginning of the ASAPs was the use of videotape either with the patrol vehicle or at the police station to film (a) the impaired driving which lead to a stop; (b) the driver's performance on the psychomotor tests in the field; (c) the driver's behavior at the police station. Tapes were intended for use either in court or in sessions with the offender prior to trial. A subsidiary use was to monitor police performance by recording the officer's behavior and the giving of *Miranda* and implied consent instructions. Results were mixed. Oregon personnel reported that the tapes were effective in gaining court convictions at jury trials, but other sites found them counterproductive where impairment was not extreme. Kansas City officials found that tapes made at the station were useful but those at the roadside were not. Seattle personnel used them extensively at pre-trial sessions but rarely at trial. Cincinnati officials used a few tapes in court, could not determine their effect on conviction rate, and eventually discontinued them because of cost and administrative inconvenience. San Antonio personnel discontinued them for lack of effect on conviction rates. Los Angeles personnel experimented with infrared equipment installed on the patrol vehicle but used less than 5 percent of the tapes in trials. A majority of ASAPs found the taping both expensive and cumbersome. Legal, administrative, and technical problems created difficulties with storage and maintenance, and the usual opinion (with dissents) was that taping systems are not yet simple or cheap enough to be cost-effective.

2. Training

Small but significant sums went to all police departments for training in methods of detecting and identifying alcohol-impaired drivers and in operation and evidence connected with chemical test equipment and procedures. All ASAPs and police departments agree that this was a

major factor in increasing the number and improving the quality of arrests. Funding went for three types of training: in-house training by experienced and trained officers; attendance at out-of-town ongoing training programs; and special in-town training by outside experts. Most ASAPs report that all three types of training are necessary, depending on the level of expertise required and the number of trainees. Continuing in-house training of regular patrol officers is regarded as essential, and better knowledge of chemical-test equipment and procedures is normally better obtained out of town. Because of turnover in personnel and development of new equipment, ongoing training or retraining is necessary. NHTSA has available extensive training programs in enforcement, and any new ASAP should contact them for this information.

3. Patrol Operations

All ASAPs paid for patrol time and administrative support. The universal assumptions were that increased arrest rates would require more police units than are regularly on patrol, and that the funds for extra units should come from ASAP. No ASAP experimented without the aid of supplements to the local police agencies.

ASAPs chose three different courses to expand patrols: creation of an Alcohol Emphasis Patrol with permanently assigned officers; creation of an Alcohol Emphasis Patrol through which officers rotate on a temporary basis; and making the Alcohol Emphasis Patrol an overtime-pay effort, with assignment based on performance in arresting drinking drivers.

The permanent-staff concept tended to isolate the ASAP effort from the rest of the department, and since it involved almost all night work, it had to offer a strong pay differential as an incentive. The rotation and overtime units on the other hand tended to be easier to man and to spread drinking-driver experience and training throughout the entire department.

The creation of an Alcohol Emphasis Patrol with outside funds seems to have had special merit when a department lacked trained, experienced personnel, when difficult new equipment or procedures needed testing or evaluation, or when the site had previously a very low arrest rate. Certainly the existence of an Alcohol Emphasis Patrol seems to guarantee an increase in arrests under almost any circumstances, since it represents the commitment of the department's leadership. The special patrol may or may not have a catalytic effect. Some ASAPs found that regular patrol arrests increased steadily, especially where the ASAP officers processed all arrests. In other ASAPs, however, the regular patrols decreased their arrests, leaving the job to ASAP officers.

In all cases, the central issue seems to have been the motivation and policy of the police department's leadership. If the leadership seriously wishes to increase arrests, then the Alcohol Emphasis Patrol is an effective method, and it will have catalytic effects on arrests by the regular patrol. Assuming that the department chooses to establish a special patrol, then the most popular staffing policy seems to be the overtime method, with selection of officers based on the number of drinking-driver arrests made on regular patrol.

ASAP also produced much evidence to show that the purchase of police time is a necessary but not sufficient condition for dramatic increases in arrests. Even with the extra funds, some police agencies continued to give higher priority to arrests other than drinking-driving, to use ASAP cars for regular patrol duties, and generally to adopt policies in conflict with the spirit of ASAP contracts. Their arrest rates did not increase very much. However, they were the exception. More typical was the situation in which departments increased arrests before the ASAP officially began and continued to do so afterwards because new equipment, information, procedures, and motivation were present.

4. Patrol Procedures

The ASAPs have accumulated highly useful information about the most productive patrol procedures.

- **Patrol hours.** All the ASAPs demonstrate that the most productive shift in terms of number of arrests is midnight to 4 A.M., with 8 P.M. to midnight second. These are also the periods in which most alcohol-related fatal crashes occur. Shifting patrol hours from the period between 8 A.M. and 8 P.M. to the 8 P.M. to 4 A.M. period dramatically increases the number of arrests and decreases cost per arrest. (In the ASAPs, about 81 percent of total patrol hours were scheduled for the period 8 P.M. to 4 A.M., and they made 93 percent of their arrests during these hours.)
- **Patrol manhours per arrest.** With the national average standing at two arrests per policeman per year, NHTSA originally sought a very steep increase in arrests: one arrest per 8 hours of patrol time. Some ASAPs achieved or surpassed that goal, while others failed even to approach it, but the average in 1972 was 15.7 patrol manhours per arrest. The range was from 6.2 (Portland/Eugene) to 70.8 (Vermont). The major factors affecting those figures seem to be: level of police interest; rural versus urban highways; one or two patrolmen per vehicle; time-consuming booking procedures. (Three out of four of these factors can be changed.) NHTSA finally could not make a specific recommendation to any jurisdiction because of the number of variables.
- **Special patrols.** The special patrol officers obtained BACs on a higher percentage of persons than did the regular patrol officers, and their arrests were at a significantly lower average BAC—differences caused by their extra training and their fulltime assignment to drinking-driving arrests. The cost per arrest by the special patrols remained high: a national average of \$125. This cost is expected to decline as arrests rise and capital costs are amortized. A significant long-term feature of the special patrols was their catalytic effect on regular patrol arrest, which tended to increase at most sites as training, equipment, and smoother procedures radiated throughout the patrol force. Some ASAP patrols also were given credit for deterrence of other criminal activity, either through high visibility (Sioux City) or through arrests for crimes other than drinking-driving (Sioux City, Phoenix).
- **Police-time per arrest.** Reduction of the amount of time spent processing an individual case seems likely to increase the number of arrests, and this can be achieved almost anywhere. ASAP experience suggests that an officer need spend no more than 45 minutes (excluding transportation time) on processing a case from time of stop through jailing, as contrasted with the 2 to 4 hours which is customary. Simplified paperwork, cooperative arrangements for testing, standardized procedures, use of breath tests rather than blood tests, and mobile vans have all been associated with decreased time per case. Further decreases are possible through wide-scale use of Screening Breath Testers.
- **Special procedures.** ASAPs reported that few police departments had proven innovative in the processing of drinking-driving cases, and they were able to be of particular assistance. Various ASAPs report, for instance, as follows:
 - The psychomotor tests conventionally used as field tests are inadequate in detecting as many as half of the high BAC (0.15+%) drivers.

- Pre-arrest breath-test equipment makes the officer's decision to arrest and test more accurate.
- Use of an officer other than the arresting officer to give breath tests, and to undertake booking and transportation, greatly increases the amount of patrol time available.
- Scheduling by the "officer's day in court" method improves police morale and tends to increase the number of arrests.
- The taking of a second formal breath test at a pre-determined interval does not seem necessary but may be required by some courts.
- Special patrol officers should not be used for routine police business or for undercover operations.
- Changing patrol patterns are necessary to respond to drivers' perception of the risk of arrest.
- A few ASAPs appended special efforts to detect drivers driving with suspended or revoked licenses, but none found the effort cost effective or even productive in the absence of roadblocks. Two reported more gain from using officers to track down defendants who failed to appear in court.

Most police departments connected with ASAPs will be able to provide additional data and recommendations concerning various procedures. Due to the variation from city to city in police resources and policy, it is not possible for NHTSA to recommend a single model procedure.

Considerable debate arose over the best methods for allocating patrol time. Roadblocks proved illegal in most states and unpopular in all. General surveillance continued to carry the main load of arrests, and the principle of selective enforcement was thoroughly justified by increased arrests; patrolling according to time of day and week, and location of prior alcohol-related accidents and arrests generally produced the most new arrests. Several sites experimented with rotating saturation patrols in high-risk areas and reported good temporary results. Highly visible patrols were popular as providing deterrence for other types of crime.

Viewing patrol procedures overall, NHTSA reports that "the variety of operating and staffing procedures was so great that each ASAP amounted in effect to a unique case." Analysis of the procedures of the most productive police departments produced only the conclusion that "almost every possible variation of procedures, equipment, and personnel policies was found to have been used successfully in at least one or two instances."

5. Liaison with Court Systems

One of the ASAP staff's main contributions was to set up adequate liaison between the court system and the police departments. Constitutionally and traditionally wary of each other, the judges, prosecutors, and police normally communicate poorly and make little effort to solve each other's problems by systematic attention to management details. By acting as neutral "manage-

ment" agents, ASAP was very often able to introduce better routine procedures into contacts between the various functionaries, which led in turn to a considerable reduction in court time spent on drinking-driving cases, simplification of procedures, reductions in police time per case, and a tendency to increase the number of arrests. In some jurisdictions, police had not been charging persons with a drinking-driving offense for the stated reason that court handling of such cases made a difficult arrest meaningless. These jurisdictions were very noticeably affected by a change in interest or procedures on the part of the courts.

Most changes affecting the police were strictly technical, and not a matter of philosophy. Paperflow systems were designed to allow for proper maintenance of the case record. Calendar policies were changed, so as to waste less police time, particularly by scheduling an officer's day in court. In some jurisdictions, judges agreed to take judicial notice of the accuracy of the breath-test equipment, saving the time of both police and expert witnesses. Other procedures became matters of philosophy. For instance, when the prosecutors adopted a formal plea-negotiation procedure coupled with formal guidelines based on BAC, there was often disagreement with the police as to philosophy but an improvement in the efficiency and clarity of operations. Prosecutors and judges sometimes criticized police arrest policies or procedures, and under ASAP the police had the opportunity to hear these doubts and either defend themselves or change their policies and procedures. Direct training of the police, often by a prosecutor, improved police case preparation and testimony. Better reporting and records systems improved the equity with which cases were handled and the caseload through the courts. As these developments took place, it became clear in many ASAPs that the police and the courts were developing a much greater understanding of each other's attitudes as reflected in procedures, and that the new procedures were both rational and likely to remain.

6. Legislative Help

ASAPs were often effective in assisting or obtaining the passage of legislation which helped the police process greatly. Most ASAPs worked with legislation recommended in a separate program by NHTSA, and some also helped legislation designed by local personnel. Most popular with police were: illegal *per se* statutes (at the 0.10-percent level); arrest without a warrant; and pre-arrest breath tests. Such legislation would have passed in most states without ASAP help, but in some states, ASAP efforts were crucial.

7. Arrest Rates

Discussion of "desired" arrest rates raises two difficult problems. First is the unknown arrest rate which will effectively deter drinking-driving. Second is the specter of arrest quotas. Together, these issues make it almost impossible for NHTSA to recommend an arrest rate for a community. The highest arrest rate for ASAP sites was achieved by Columbus, Georgia, which in 1972 arrested 3.7 percent of the number of licensed drivers in the area. Of the 29 ASAPs functioning in 1972, only one other (Pulaski County, Arkansas) had an arrest rate over 3 percent. Of these 29 ASAPs, 11 had rates still less than 2 percent. Only one ASAP failed to increase its arrest rate (Boston at 0.3 percent), and most at least doubled the arrest rate prior to ASAP. In fact, doubling was the norm, with the national average increasing from 0.6 to 1.2 percent between 1971 and 1972. By the 1972 ASAP Evaluation Report, NHTSA was willing to comment that "Significant increases in the level of arrests seem in order for some ASAPs. Arrest rates below 2 percent of licensed drivers

are not enough." The Report also comments as follows: "It is possible that the arrest levels in the ASAPs are still below the level needed to be a deterrent by themselves." By both practical and theoretical measures, then, ASAP has shown that current arrest rates in most communities, and even doubled or tripled arrest rates, are still too low by themselves to affect the amount of drinking-driving. ASAP is therefore still unable to give solid advice on either the maximum tolerable arrest level or the optimally effective arrest level. It should also be noted, however, that several ASAP roadside surveys noted declines in the number of drinking-drivers or in certain categories of drinking-drivers, but they were unable to determine the cause of such declines.

D. Conclusions

ASAP emphasis on enforcement demonstrated the following:

- Despite the presence of federal funds, a jurisdiction's police policy will be determined by the police department and city managers. All other results stem from the presence or absence of police willingness to make drinking driver arrests. Department priorities can be influenced through city management; active commitment from the Chief and his leading officers; raising the volume of arrests to a higher proportion of total arrests; disseminating good training, including on-the-job experience, through as many patrol officers as possible; the presence of strong contractual commitments worked out with the department in advance; and the provision of missing equipment and resources. Patrolmen's priorities can be influenced by better specialized training, overtime pay, lessening time used in arrest procedures, and improving court processing. A small number of individuals inside a police department will be interested in drinking-driving cases. These individuals will often be intensely dedicated but they may or may not have any influence over department policy, which will tend to give more emphasis to crimes more immediately threatening to the citizenry (burglary, violent crimes).
- The most productive areas for investing funds are equipment, training, design of procedures (both arrest and court), and information flow. All police operations can use assistance in these areas. Under present patterns of police funding, it is necessary to provide funds for equipment, especially new expensive equipment. The provision of equipment has benefits limited in time to the life expectancy of the equipment. Investment in training and procedures has a longer dividend period. A substantial and lasting improvement can be brought about by even a temporary ASAP, and would probably not occur without such an agency as ASAP.
- Significant improvements can be made in the processing time for the arrest of a DWI through revision and standardization of procedures. Further decreases would be possible if all areas had legislative authority for the use of Screening Breath Testers.
- In a majority of jurisdictions, ASAP had little difficulty in doubling or even quadrupling the number of arrests. No ASAP could prove that it had increased the number of arrests to the deterrence level, and no ideal number of arrests could be postulated. Despite increases in arrests and simultaneous declines in alcohol-related accidents, no ASAP claimed to be able to prove scientifically a relationship between arrest rates and accident rates. The real challenge lies not in creating a temporary increase in arrests because of the infusion of federal funds but in changing a department around so that the arrest rate can remain high.

- Police departments do not resent the ASAP systems approach; in fact they prefer it to an isolated enforcement effort as long as ASAP solves problems connected with waste of police time in trial appearances and the presence of unwarranted dismissals of cases and inequitable, informal plea negotiation.

IV. ASAP COURT COUNTERMEASURES

A. Background

All drinking-driver cases go through the "lower" courts, usually courts of limited jurisdiction. No agency representing an outside interest had ever worked with the lower courts on a nationwide basis prior to ASAP. The highway safety experts knew almost nothing of the dynamics of the lower courts. Each of these statements helps to understand the magnitude and imaginativeness of ASAP efforts with the courts, a contribution whose significance is only now beginning to come clear.

- **Stature of the lower courts.** The lower courts are at the bottom of the judiciary's ladder of prestige and resources. By far the majority have no probation services. A majority lack professional prosecutors, and most are staffed by part-time or nonlawyer judges. Many do not have clerks, bailiffs, adequate facilities, or freedom to expand their budgets to meet identified needs. As recently as 1974 and 1975, the Law Enforcement Assistance Administration was heavily criticized by official government reports (GAO, American University) for neglecting the lower courts, and no other government agency has ever helped them at all. The lower courts have been historically ignored, even though in terms of numbers they handle by far the majority of cases entering the criminal justice system. They have grown isolated. Almost no one outside the courts tries to influence the judges, and most judges have a conditioned response to the idea of working with outside agencies: "I can't become a social worker." Courts with small caseloads routinely handle cases in a routine manner. Courts with large caseloads are often equally routine, but they are also characterized by large backlogs, poor record systems, and under-the-table plea bargaining. The lower courts seem to belong only to those who run them, and outsiders often criticize them as being run cooperatively by the various segments of the legal profession in a xenophobic manner.

Recently change has begun to affect the lower courts. Among the most important influences have been the following: court unification at the state level; introduction of computer-based information systems for scheduling and records; "professionalization" of the judiciary (i.e., abandonment of JPs not trained in the legal profession); ABA and LEAA criminal justice standards and goals; availability of LEAA funds through the state criminal justice planning agencies; efforts at judicial education, especially those through the National College of the State Judiciary and the American Academy of Judicial Education; public and professional outcries about the crime rate and the ineffectuality of the court system. There is, in other words, enough ferment within the lower courts to make change possible.

- **Status of drinking-driving cases.** In terms of volume, drinking-driving cases (or drinking-driving cases introduced under another charge) represent either the majority or a substantial minority of all cases entering the lower courts. For many lower courts, the statutory penalties for drinking-driving are the most serious which the court can levy. All lower courts therefore find that drinking-driving cases represent one of the most important areas of their operation. The courts do not like them. They tend either to increase backlog because of the number of trials (especially jury trials) which they require or to encourage routine plea bargaining which reduces the effectiveness of both police and court operations. They create considerable anxiety in judges either because they believe the statutory penalties to be too harsh and ineffective, or because they dislike

cooperation with an agency of the executive branch (the driver licensing authority). Few lower courts express satisfaction with the way they handle drinking-driving cases.

- **Attitude of highway safety.** The highway safety establishment in general, and NHTSA in particular, had never worked with the lower courts on a nationwide basis prior to ASAP. Knowledge of practice and theory was unavailable, even had NHTSA wanted it. Because most highway safety programs have been oriented toward enforcement, the widespread belief was that the cases would simply be handled by the courts however they wished. Highway safety experts who had real-world experience of the lower courts tended to be skeptical about improving their functioning. Those who did not know the lower courts tended erroneously to believe that they followed the textbook or ABA Traffic Court Program model for their operations. Existing literature from previous decades dealt almost exclusively with evidentiary and trial issues, particularly centering around breath-testing issues and procedures, and almost no literature existed concerning referral programs.
- **Referral concept.** The concept of referring drinking drivers to outside agencies as part of a judicial disposition came from three sources. First, certain pioneer courts under the leadership of individual judges had been experimenting for a generation with the concept, and some jurisdictions had developed considerable if narrow experience. Second, driver education was spreading slowly to dealing with drivers in trouble because of alcohol as well as because of other reasons for bad driving records. Third, the 1968 Alcohol and Highway Safety Report clearly identified addicted or problem drinkers as being the population most at risk and as requiring specialized responses from the criminal justice system. As a result of these factors, both various independent researchers and NHTSA grew interested in adding a referral to education or rehabilitation to the arsenal of disposition alternatives, and the ASAP systems approach required the referral concept in every jurisdiction.

When ASAP started, therefore, both the federal and the local staff met court systems which were intrigued with what was offered but totally unaccustomed to working with outside agencies, with federal representatives, with the executive branch of government, with treatment agencies, often with probation departments, and with the whole range of federal reporting requirements and contract obligations. Cooperation between ASAP and the courts could have been disastrous, but in the end it has emerged as one of the stronger of the ASAP achievements. The same pattern will probably hold true in almost all jurisdictions.

B. The ASAP Court Approach

When ASAP first started, no one had dealt with a nationwide program based on the lower courts as the key agents in a program that had both alcoholism and highway safety goals. No one anticipated the amount of work which would have to be done or the exact nature of that work. NHTSA quickly commissioned a search for model jurisdictions. Surveys showed very few court-referral programs for drinkers or for drinking drivers, and no comprehensive programs. The few existing programs had been set up by individual judges or others within the local community, and though there were some outstanding programs, there was nothing of the scale or nature required by ASAP, no model system that could be offered nationwide, and only a small body of literature and experience to guide the creation of models. NHTSA therefore used contract research at the national level to develop model procedures and instruments to aid the courts. Main responsibility for

developing court programs, however, rested with local personnel improvising as best they could under certain general principles. Over the 4 years of ASAP, each jurisdiction experimented with its own system, and only after 4 years were certain general patterns and effective procedures emerging to provide a set of models.

The two major problems facing an ASAP working with the courts are very clear:

- Devising methods to enable the courts to handle a greatly increased caseload efficiently, effectively, and fairly.
- Assisting the courts to design, implement, and operate systems for making and monitoring appropriate referrals.

ASAP sought to help the courts by streamlining procedures and providing extra resources. They wanted the judges and prosecutors to cooperate in a review of the local judicial system which would lead to the effective processing of large numbers of cases and adoption of education and rehabilitation as alternatives to punitive sanctions. ASAP provided funds for the following:

- Prosecution staff for handling DWI cases.
- Judge and court staff for adjudication of DWI cases and provision of case disposition information to appropriate agencies (state and local).
- Training of prosecution and court personnel regarding the alcohol safety problem and special methods for handling DWI cases.

These and other ASAP efforts were aimed at achieving three main objectives:

- Achievement of a "satisfactory outcome" (not necessarily a formal conviction for DWI) in a majority of cases;
- Provision of speedy, low-cost processing, including the use of pre-trial disposition;
- Provision of effective record keeping throughout the court system, at all stages of case handling.

Each objective represented a major choice in criminal justice system philosophy, almost all innovative. The early tendency of most ASAPs had been to create a textbook model of the court process: the best evidence for every case to be used in trials; prosecution for the original DWI charge in all cases; conviction for the guilty; imposition of statutory penalties plus a referral where necessary. Prosecution was to be improved in order to win more trials, and "pre-sentence" information was to be collected by a probation staff modeled on those of felony courts. However, under the realities of caseload, resources, local desires, and the nature of the offender population, the textbook notions swiftly gave way to more cost-effective methods designed by the courts themselves to fit the basic systems which they already operated. For instance, the choice of a "satisfactory outcome" rather than a conviction for the original charge is a major compromise made in recognition of the universality of plea bargaining and charge reduction. Again, the acceptance of pre-trial disposition systems (inaccurately called "diversionary programs") was necessitated by caseload rather than theory, though the theory may well vindicate the practice. These systems are simply a recognition of the manner in which the lower courts manage to function at any reasonable

cost. Finally, since asking most lower courts to keep adequate records is to create a revolution, many ASAPs not only designed but even maintained the court's information systems. Several ASAPs were dealing with municipal courts which were not courts of record, others dealt with JP courts, and few prosecution staffs kept minimally adequate data, with the result that ASAP evaluation staff found themselves embroiled in the practicalities of one of the lower courts' main areas for improvement: data systems.

The second major ASAP objective—to convince the judges to use education and rehabilitation as alternatives to punitive sanctions—was also a major innovation in most lower courts. It was based on the belief that the lower courts had or should have the same full range of procedures and resources available to felony courts, and to a few large misdemeanor courts, and which had very rarely been used for drinking drivers. As the *1972 ASAP Evaluation Report* points out, in a court-based referral system, the court must fulfill three functions in addition to those attached to traditional adjudication:

- Identification of the extent of the offender's drinking problem so that he can be referred to an appropriate treatment;
- Motivation of the defendant to accept this referral by appropriate deferment or reduction of punitive sanctions;
- Control of the referred individual to assure that he completed the assigned education or rehabilitation program.

These activities require the court to have the capacity for collecting and analyzing information, knowledge of the agencies to whom to refer people; personnel and information systems needed to make and implement decisions, and cooperative understandings with other elements of the criminal justice system. Therefore, ASAP rapidly developed a series of intermediate objectives for the judicial countermeasure:

- Obtain the cooperation of judges and prosecutors, especially in the design of an appropriate system in the early stages of the program;
- Achieve increased flexibility in sentencing, particularly by attention to impending legislation;
- Achieve support for and provide assistance in pre-sentence investigations, including both the personnel, the records, and the procedures necessary;
- Provide assistance in finding referral agencies;
- Ensure community support to court and court officials.

In these objectives, the impact of the ASAP systems approach is evident, and they represent a major choice in criminal justice philosophy: to shift attention from trial to disposition system, from legal technicalities to case processing, from the individual judge to the concept of a court system, from an isolated sentence to a team interaction between all legal and public health agents. Whereas early ASAP efforts concentrated on improving the trial process (e.g., by adding prosecutors or changing legislation), later efforts went into system design, emphasizing fast screening processes and referral regardless of conviction. Thus, the number of full trials did not increase anything like as

much as had been anticipated, and the number of referrals to education or rehabilitation rose dramatically.

ASAP may therefore be said to have spent its efforts in two different but related directions. First was the attempt to bolster the existing court system to the point where it could cope satisfactorily with the traditional model of adjudication. This involved direct payment for staff of all kinds (prosecutors, judges in some cases, pre-sentence and probation staff, court support personnel), and sometimes for facilities. Personnel, resources, and training were added to bring a local court up to accepted standards, in a manner which all local jurisdictions approved. Second and more important was the subsequent attempt to design and implement efficient court-based referral systems, in which the cooperation of all agents in the system made the identification and processing of drinking drivers to appropriate referral opportunities more important than the technical handling of the individual case. This dual approach may prove to be the model necessary for any program working with the lower courts.

It should be emphasized that ASAP did not impose outside theory on the courts. It worked with them and, in doing so, paid a heavy price. ASAP had to be extremely flexible as court systems responded to outside and internal pressures and revealed their fragility at every moment of change. NHTSA had to be flexible in accepting the achievement of one objective (e.g., increased referrals) even at the price of abandonment of another objective (e.g., records of conviction for DWI). ASAPs universally took the existing system in its jurisdiction and sought to improve it, rather than trying to impose an ideal model. Where before systems had operated in an informal and disorganized manner, ASAP sought standardization within the jurisdiction, and equity for all offenders regardless of trial. ASAPs sought disposition systems that were both meaningful and pragmatic, accepting almost any *method* by which the disposition system might exist. Thus, although early efforts went into improving trial matters (e.g., the provision of expert chemical-test witnesses), later efforts went almost exclusively into the following areas:

- *Pre-trial*: working with prosecutors toward standardization and the use of policy rather than individual decisions; collection of information for screening and referral; formalization of plea bargaining criteria; addition of referral as a condition of charge reduction.
- *Post-plea*: provision of information either to the prosecutor or to the judge, either pre-trial or pre-sentence or post-sentence, on which a disposition could be based.
- *Post-referral*: accomplishment of an appropriate referral to education or rehabilitation; monitoring of probation conditions and compliance with the referral; violation of probation and evaluation of success or failure.

Unwittingly, ASAPs found themselves in the forefront of systems design for the lower courts. Instead of working to make the traditional system more substantial, as had originally been planned, ASAPs spent considerable ingenuity in devising new models for the handling of lower court cases. In particular, their role in bringing about liaison between the judges, other members of the criminal justice system, and outside agencies proved as innovative as it was difficult, both new, stimulating, and challenging to all jurisdictions involved.

One final problem should be mentioned at this point. There was almost no coordination from one ASAP to another concerning court systems. Despite ASAP's and NHTSA's extensive efforts to transfer the experience of one site to other sites, general handbooks and guidelines which would

provide the models for all jurisdictions are only just beginning to emerge. In looking at any one ASAP, therefore, one usually finds a confusing combination. On the one hand, there is a state of constant change as the court systems experiment. On the other hand, there is no direct transfer of experience (or even forms) from one jurisdiction to another, so as to make experimentation easier. The result is that each ASAP court system seems unique at each point in time. Add to this the uniqueness of each locality in which ASAP operated, and it becomes impossible to generalize about the "effectiveness" of one system against another. General criteria and efficiency measures have by now emerged, but no jurisdiction can make unwary claims about the superiority of its system or the methods by which the system works.

C. ASAP Court Findings

Because ASAP's work with the courts was innovative and experimental, many of their experiences with the courts have not yet been thoroughly analyzed and most were not carefully evaluated. The findings in the following pages are, therefore, tentative and sometimes unquantifiable, but they are backed by the experience of enough ASAPs to merit consideration.

1. Judicial and Prosecutorial Conferences

Most ASAPs tended to take judges for granted during planning stages, but as problems arose, all ASAPs conducted many meetings with both prosecutors and judges. Some meetings were informal; others were formal business and educational sessions. Two-thirds of the ASAPs also used NHTSA funds to host judicial and prosecutorial seminars designed and conducted by Indiana University over a 3-year period. Most conferences also involved representatives of the defense bar, and several ASAPs also conducted special meetings for local bar associations. The conclusions from this experience are important:

- Early, regular, and frequent meetings with judges and prosecutors are essential. Although the judges and prosecutors have wildly varying attitudes toward the ASAP concept, they remain the key personnel in the ASAP concept regardless of attitude. They should be brought into the program during the planning stage, and their active participation in design and redesign is one of the most important ingredients in a program's success. The power of judges and prosecutors over ASAP is unshakable. Education is necessary concerning alcoholism, highway safety, sentencing theory, court procedures, local customs, and the nature of the offender population. The main effort concerning trial should go into inducing a proper understanding of BAC. The main effort concerning rehabilitation should go into the nature of recidivism and "cure." Both issues affect the design of the referral system and the choice of the court procedures which will always remain the main interest of most judges and prosecutors.
- Though strong attempts should be made to change the attitudes of judges and prosecutors toward problem drinkers, their attitudes are subject to so many other influences that attention is more wisely spent on designing a system that does not depend on individual decisions based on attitudes. ASAP should seek to solve problems for the courts. Efficient system design is the area where cooperation is easiest.
- Joint planning sessions coupled with education are a new experience to the vast majority of judges and prosecutors. Judges are used to "public relations" approaches

based on "the social good," but they are not accustomed to the mutual identification and solution of court problems. Prosecutors deal almost exclusively with technical matters concerning either an individual case or the operations of the department, and few of them tend to be idealistic or trained in management. ASAP will, therefore, be approaching them in ways to which they are not accustomed and may expect to spend some time before familiarity breeds respect.

- By far the majority of judges welcome the ASAP concept, even when unaccompanied by lavish funds. But they approach it very cautiously. Almost all judges are highly sensitive about the independence of their function and few will give up authority wholesale. Prosecutors will cooperate only if the system is satisfactory to the judges and the defense bar and an improvement in technical matters over the existing system. Given full and accurate information, and requested to help solve problems, almost all prosecutors and judges will cooperate in a general way. Individual discretion, however, will continue, so that an 85-percent rate of compliance with the agreed procedures is a maximal expectation.
- In many jurisdictions the attitude and actions of the defense bar determine court action through their influence on prosecutors and judges (e.g., by the threat of bringing all cases to trial). Careful analysis of existing and alternative "rewards" for cooperation with a referral system is essential to equitable operation, and the defense bar will give invaluable insights into these incentives.
- Turnover among judges and especially among prosecutors is so large that it will inevitably affect ASAP operations. Constant reeducation will probably be necessary, and most important is the design of a system that will work automatically rather than be totally dependent on the individual.
- Approximately one-half of the ASAPs attributed a major turnaround in their court system to the conduct of a joint planning session of the kind offered by NHTSA, as long as the session had detailed followup from the local ASAP.

2. Prosecutors

About one-half of the ASAPs provided funds for full-time or part-time prosecutors specially to handle DWI cases. In some cases these were new prosecutors, in others they were additions to present staff, and in others they were existing prosecutors whose duties were reassigned. No objective evidence could be found to prove that these special prosecutors increased the conviction rate or the number of referrals, though subjective evidence suggests that they did, and in some jurisdictions the prior policies of the department show that a new influence was needed. Where funds went for salaries, ASAP contracted with the prosecution agency, which gave them some influence over policy because the funded prosecutor had to make his time available to ASAP.

In 1974, NHTSA reported that "many ASAPs are reconsidering the use of prosecutors who will handle *only* DWI cases and are moving in the direction of rotation of these cases among all of the prosecutors on the district attorney's staff." The problems were boredom and turnover, and the trend toward rotation continued. If a special prosecutor was not appointed, then most ASAPs found three other steps necessary:

- Appointment of a career prosecutor as an "ASAP Coordinator" with responsibilities for the management of the system for handling DWI cases and liaison, through ASAP, with other persons in the system.
- Training of all prosecutors in the prosecution of DWI cases and in the criteria and procedures for plea bargaining.
- Issuance of a policy statement by the chief prosecutor, accompanied by a handbook of criteria and procedures for plea bargaining, to guarantee equitable handling of all cases.

Almost all ASAPs agree that they should have a formal liaison agent inside the prosecution agency, and many believe that the funding of a special prosecutor during the planning and early implementation of the ASAP is desirable, both to handle the increased caseload and to design a permanent system. Although prosecutors are normally young attorneys on the way to another job, some ASAPs worked with career prosecutors who had made a serious job commitment, and other ASAPs owe their new system to the active energy of such prosecutors. Any pre-trial system must have the ardent cooperation of a prosecutor. Many jurisdictions lack prosecutors altogether or have only part-time prosecutors. There is no necessary consistency between jurisdictions within the same state. On a statewide basis, therefore, an ASAP director deciding whether or not to hire a special prosecutor should make individual decisions based on the agencies and personnel and caseload involved in each jurisdiction.

Training of all prosecutors is necessary but unsatisfactory. Most prosecutorial training occurs on the job. Turnover is high. Prosecutors are even more resistant to "education" than judges, since they find the daily turmoil of their operations occupies their energies. Prosecutorial autonomy and discretion will tend to override any educational effort.

3. Judges

Many ASAPs paid part of judges' salaries (and in rare cases all of the judges' salaries), feeling an obligation "to reimburse the community for the additional time of the judge that was generated by the ASAP." As with the prosecutors, most ASAPs moved away from the use of a special judge and preferred the regular processing of cases by all judges, which required the extensive use of judicial training seminars to convey information and seek a joint policy.

The direct reimbursement of a jurisdiction for a judge's salary by a federal, executive program is a matter of some controversy in many areas, since there must be a careful definition of what is given in return. At least one ASAP (Portland, Oregon) used its federally-supported judges to design and implement a completely new system for handling cases which was then taken over by local funds, and this seems to have been an effective method to handle ASAP objectives. Other ASAPs in a similar position, however, found that they had not increased their influence over court operations, while many ASAPs had full judicial cooperation without funding judges directly. The best recommendation would perhaps be to fund judges' salaries only for a limited amount of time and in special circumstances. An increased caseload is usually better handled by assistance with support operations, improved court procedures, education and system design sessions, and by help provided (preferably through a Presiding Judge) in ironing out problems of policy or procedure.

4. Clerks and Other Court Personnel

Maximum benefits may arise from supplementing funds for clerical staff for two distinct purposes:

- Improving management of the court docket and calendar so as to ensure more rapid and effective processing of cases;
- Collection of data on all stages of the processing of all DWI cases.

In these two areas, supplementary funding seems both necessary and justifiable since ASAP is asking for new court activities exceeding basic legal requirements and clearly related to the functioning of other agencies in the system.

In courts lacking support personnel, these funds can introduce elementary court administration techniques. In better staffed courts, clerical help improves the record and reporting systems. Few courts have an accurate understanding of the records needs of outside agencies or of the amount of work needed to respond to these needs, and an ASAP director should look carefully to see where his support can best be utilized. Some ASAPs funded clerical personnel. Others funded or partially funded court administrators, court clerks, data analysts, or court expeditors. All courts in ASAP jurisdictions reported enthusiasm for such support staff, since their efforts inevitably radiated into all areas of the courts' operations.

5. Expert Witnesses

Almost the only help which ASAP could provide the courts when dealing with trials was the supplementary funding for expert witnesses concerning breath tests and impairment. NHTSA makes the following comment: "While projects utilizing these experts claim that their conviction rate has been greatly improved through this service, statistical data to support this contention are lacking. Hopefully, the tendency for the courts to take judicial notice of the accuracy of chemical test methods will increase and obviate the need for expert testimony. While it is true that in jury trials the presence of experts can be very valuable, very few jury trials are actually held."

Two points should be noted in addition. The hiring of an expert witness to ensure the best education of the judges themselves is often a desirable temporary measure, both when the program begins and when a new judge takes the bench. In a handful of ASAPs, this kind of education resulted in the judiciary taking judicial notice of the breath-test instrument's accuracy. However, by no means will all jurisdictions take judicial notice in this way; though a desirable goal for highway safety, it is highly unpopular with the defense bar. Second, the cost of an expert witness and the prospective burden on him should be carefully estimated in advance. Many ASAPs found the overload too great.

6. Court Facilities and Equipment

Few ASAPs supplied physical equipment to the courts, though exceptions included a fully equipped courtroom at one site and computer terminals for all courtrooms at another site. Minor capital expenditures (e.g., for tables and chairs) were often necessary since most courts have almost no equipment funds, and the creation of goodwill could alone be worth the expenditure.

The best use of ASAP funds to support the courts is the provision of expertise. Some purchase of equipment may be necessary, but it should not be assumed automatically that an increased caseload requires extra physical resources (courtrooms, etc.). As far as personnel costs are concerned, the most cost-effective supplements are for court-support personnel and training. Funding of judgeships and prosecutors may be necessary, depending on the jurisdiction and the caseload. Funds spent on design of the adjudicative process and on information systems are beneficial.

7. Alternative Disposition Systems

Every ASAP court system differed from every other in at least some respects, but four major systems are apparent, given the present state of the law and the criminal justice system.

- *Judge plus statute.* The oldest and probably still the most common system, this model uses the judge in his traditional roles as trier-of-fact and as imposer of the sanctions prescribed by statute. Most courts handling drinking-driving cases lack prosecutors or probation officers and avoid juries, leaving the judge guided by statute as the controlling figure. In this model, judicial discretion normally enters only to suspend or lessen sanctions (though the judge may also reduce charges). A referral to treatment or education normally occurs only if the statute calls for it and the appropriate community agencies are active. This model is the traditional system contemplated by the original drinking-driving legislation.
- *Prosecutor plus statute.* Almost as widespread as the first system, this model uses the routine plea bargaining and charge reduction policies widely credited with keeping the courts running in many jurisdictions. Originally developed to handle the court's caseload and backlog by reducing the amount of judge time required by trials, this model makes the prosecutor the prime adjudicator and reserves the judge (and/or jury) only for exceptional cases. The model usually exists where the influence of defense attorneys is specially strong, or where sanctions are mandated by statute. In an attempt to get a guilty plea under an approximately relevant traffic law (such as careless driving), the prosecutor in fact offers lesser sanctions in return for a guilty plea to a lesser charge. This, of course, occurs in the pre-trial phase. A referral to treatment takes place only if the prosecutor and the defendant agree to it as a condition of the charge reduction or sentence bargain. The major objection to the model is that it avoids both the statutory penalty and the record for a drinking-driving conviction, solving the court's problem at the expense of legislation, driver records, enforcement efforts, and highway safety.
- *Judge plus information.* Usually connected with the terms "pre-sentence investigation" and "probation," this model has long been common in the felony courts and is becoming more common in misdemeanor courts. Information about the individual is usually collected after a determination of guilt or innocence, provided to the judge at the time of sentencing, and used as the basis for differentiated sanctions stated as conditions of probation. As will be discussed later, however, the same process can take place without sentencing taking place, without a finding of guilt, or even without a formal trial. In this model, the judge is the supervising agent, usually operating under statutory powers, though inherent powers are sufficient in many jurisdictions. This model exists in order to provide referrals. It is the original model for the health/legal approach, offering the threat of stricter criminal justice penalties if the individual fails to cooperate with the treatment or education agency.

- *Prosecutor plus information.* The basic concept of this model is the same as the preceding, except that the information and referral process centers on the prosecutor, who then uses prosecutorial powers to induce a referral to treatment or education. It is a formalization of the plea bargaining process. In return for a guilty plea and/or cooperation with conditions, the prosecutor offers a reduction in charge and therefore sanctions; unlike routine plea bargaining, however, the conditions are stated formally and include a referral to education or rehabilitation based on accurate information about the individual. "Pre-sentence investigation" and "probation" functions thus attach themselves to the prosecutor rather than the judge. This model is not a pure diversion program since it occurs within a close structure of criminal justice operations: conviction on some criminal charge will take place, and "threat" of trial on the original drinking-driving charge is used as the inducement to cooperation. The model does respond to both the need for greater court efficiency and the desire to make accurate referrals. When coupled with an eventual conviction for a lesser drinking-driving charge (thus preserving the record), this model works as effectively as any other to achieve highway safety interests.

The preceding four models all use criminal law and the prospect of criminal sanctions as the method for achieving a referral to a nonpunitive program. Each may or may not be in line with state legislation. Use of one model does not preclude the use of the others, and jurisdictions in which all four models appear are becoming less rare. The first two models are increasingly regarded as less desirable than the last two, since the provision of information and the use of a coerced referral are widely regarded as improving both the efficiency, the effectiveness, and the fairness of the adjudicative process. There is no clear experimental evidence that any system is superior to the others in reducing highway casualties, but experimentation has not continued long enough to be satisfactory.

8. Adjudication Problems

The problems associated with the adjudication of drinking-driving cases arise from many sources and at all stages, but three may be said to predominate. First, the lower courts lack the resources and knowledge and procedures to develop and maintain effective systems spontaneously. The problems in this area are the same as those affecting the criminal justice system in all areas. Second, the population of drinking drivers has two distinctive and difficult characteristics: it is extremely large, and it contains many people addicted to a socially approved substance. Drinking-driving cases, therefore, try the patience and the resources of the adjudicative process more than any other single category of arrests, and they make underlying problems of effectiveness more apparent. Third, drinking-driving cases involve more than one agency and more than one branch of government, and systems designed to handle them encounter all the social problems of maintaining cooperation between the legislative, executive, and judicial branches, between the various agencies within each branch, and in referral systems between different agencies in different branches. When the number of drinking-driving cases is associated with the difficulty of handling them, it can be seen that they represent a unique problem to the adjudicative process.

A more specific list of problems would include the following and many others: caseload; backlogs; lack of judges, prosecutors, investigators, and probation officers; dislike for mandatory penalties; ineffectiveness of statutory penalties; value of the driver's license, scofflaws; assembly-line and revolving-door tribunals; jury attitudes and costs; differences between rural and urban attitudes; poor training of judges and prosecutors; dominance of the defense bar; possible damage to defendant's rights; inequities between jurisdictions; inconsistency of decisions from case to case;

disputes in authority between agencies or branches (especially courts and driver licensing agencies); disobedience by the courts of statutes; failures in the flow of information from agency to agency; overuse or underuse of prosecutorial or judicial discretion; absence of simple, valid criteria for making decisions; failure to provide adequate evaluation of efficiency or effectiveness; inadequate or inaccurate record systems.

To achieve effectiveness, efficiency, and fairness among these problems, and still to treat citizens with the individual response which is their right, is a challenge to any community. As incentive to undertake the task there are only two—but two very important—concepts. First, current research indicates that good adjudicative procedures do indeed tend to reduce the amount of drinking and of drinking-driving among the population reached, in a manner which has the strong support of many alcoholism experts. Second, improving the handling of drinking-driving cases also improves all the operations of the lower courts and represents enlightened self-interest on the part of court personnel.

9. Effects of Mandatory Sanctions

Conflict between mandatory sanctions and judicial discretion was universally a major factor in disposition systems.

- *Jail.* In all ASAP sites, jail was a statutory penalty for drinking-driving, but only two states statutorily proscribed judicial discretion from suspending the jail-time: Arizona and Ohio. These two jurisdictions responded completely differently. In Cincinnati, the conviction rate was high (91 percent in 1974) and most judges routinely sentenced offenders to jail, even if it was served after completion of rehabilitation. The courts were supported by a strong, professional probation department. In Phoenix, plea bargaining was almost universal, and the system was so uneasy with the mandatory jail sentence that guilty pleas to lesser charges were routinely accepted. ASAP helped the court design a formalized plea bargaining system coupling a referral to treatment with an earned charge reduction. The conviction rate for DWI remains low, but "PACT" (Prosecution Alternative to Court Trial) is accepted by more than 90 percent of defendants, resulting in a very efficient processing system and a high rate of referrals to rehabilitation or education. The differences between the responses made by these two jurisdictions deserve further study. The Phoenix attitude toward mandatory jail is much more typical than that of Cincinnati, though the latter's system undoubtedly keeps the court better in line with the wishes of the legislature.
- *Fines.* All jurisdictions fined all those convicted of any charge. The amount of fine varied from \$10 to \$500. Reductions in the amount of fine often accompanied acceptance of a referral. No evidence was found to determine that amount of fine had any effect on preventing recidivism, but no thorough analysis was made.
- *License suspension.* In about half of the ASAPs, a judge had no discretion over suspension of the license for a first offense, according to the statutes. In the other half, judges had some control: perhaps total discretion, perhaps the power to recommend issuance of a restricted license, perhaps the power to lessen the period of suspension or revocation. In all jurisdictions, judicial discretion over the license became the single most important determinant of the way a system would develop, but no predictions could be made as to the course a jurisdiction would choose.

Systems which mandatorily remove judicial discretion concerning the license seemed sometimes but not always to result in widespread avoidance of conviction by one method or another. In most ASAP sites, the members of the criminal justice system regard mandatory license suspension or revocation as such a severe penalty that the nature and duration of the license suspension become their main tool for inducing cooperation with a referral.

- *Economic penalties.* A series of economic penalties (other than the fine) associated with a conviction for drinking-driving strongly influence the actions of both the courts and the defendants. These are the increased insurance rates; possible loss of job; alternative modes of transportation; defense attorney's fees. Though the courts are unaware in detail of the actual extent of these penalties, there is a widespread mythology emphasizing their severity and a belief that they are overly punitive. Many defendants, especially recidivists, are fully aware of the consequences of conviction. Judges, prosecutors, defense attorneys, and defendants willingly accept any referral if by doing so they can avoid imposition of some or all of these extra-judicial penalties.

10. Jury Trials

Most ASAPs worked with courts where there was a right to jury trial, but in some areas jury trial meant transfer to another court. Jury trials in all systems became a significant factor in determining what the courts would do, even though a very small proportion of cases reaches a jury trial. Most prosecutors regard jury trials as an undesirable risk, especially at BACs below 0.15 percent. The defense bar likes jury trials only if they have a good chance of winning, but they regularly ask for jury trials where such a request will give them weight in a plea bargaining process. Judges dislike jury trials as costly and time consuming. Jury trials, therefore, become a specter presiding over the court system, enlivened by the knowledge that if all or most cases went to trial, the court backlog would grow to an extent which would render the system inoperable. Only in a few ASAPs did the defense bar even temporarily adopt a policy of going to trial with most cases, usually in an attempt to "make the court see reason," i.e., to force cooperation through plea bargaining. Nonetheless, jury trials remain a crucial system ingredient, no matter how little used.

11. Court Time

Unfortunately, no ASAP analyzed the details of the court time spent on DWI cases, and no comparative figures are available in detail to show the amount of court time per case which different systems require. Although many judges and courts are overworked, and although ASAP enforcement raised the load considerably, few ASAPs had more than a temporary problem with caseload. The solution universally was design of a better system by the judges and prosecutors, caused by attention to processing and management methods which had not been necessary under lighter caseloads. Various sites induced as many guilty pleas as possible, usually to a reduced charge. Others used suspended sentence or withheld judgment or deferred prosecution, coupled with a referral to treatment, which then resulted in a lesser charge or a lighter sentence. Some courts revised their methods for scheduling original trial, making greater use of arraignment and pre-trial disposition meetings (with either prosecutor, judge, or both). Some jurisdictions reduced the number of appearances necessary, for example by sentencing guilty pleas at the first appearance, or after conviction by placing details of the disposition in the hands of probation officers. The major remaining problem unsolved by most ASAPs was that of continuances. Continuances are granted for the convenience of the prosecutor sometimes, the defendant sometimes, but most usually for the

defense attorneys, and they rarely serve the purpose of either the judges or the defendants. In sum, caseload problems can be solved by (a) a reduction in penalties to induce cooperation with the system, coupled with a referral to rehabilitation or education; (b) better court administration, especially the design of standard procedures and the use of support personnel; (c) changes in court policy, especially as regards continuances.

12. Plea Bargain Criteria

Most criteria used by prosecutors to decide whether or not to plea bargain a case are suspect. Such criteria improve the operations of the courts, and they tend to decrease inequity by encouraging standardization throughout a department, but they serve the interests only of efficiency, not of appropriateness to the individual offender. For example, the following criteria are often considered:

- *BAC.* Although prosecutors win guilty pleas and convictions at BACs as low as 0.10 percent, they are uneasy at going to trial with any BAC below about 0.15 percent because of both hypothesized difficulty with winning a conviction at trial and an inaccurate belief that such BACs are "low" and typical of social drinkers. Many prosecutors routinely plea bargained cases below a certain BAC; the chosen BAC varied in different jurisdictions from 0.14 percent to 0.20 percent. At other times, BAC alone was used as the criteria for refusing a plea bargain. Except in certain carefully prescribed manners, BAC is not a suitable basis for selecting a disposition pattern, and use of it as such distorted all the patterns of subsequent agencies in the overall system.
- *Prior record.* Prosecutors held confused attitudes toward repeat offenders. Generally, they wanted (like legislators) to punish them more severely, to refuse them plea bargains, and to take them to trial. This reaction often resulted in excluding the worst substance-abusers from treatment programs, or in treating alcoholism as a crime, though neither event was intended. Record systems are presently inadequate to make identification of repeat offenders reliable and complete in all cases. Some legal systems require completely different handling for second offenders and first offenders. Further, as arrest rates increase, the number of recidivists should also increase. In sum, the response of prosecutors to repeat offenders requires much greater attention than had been recognized, and the use of prior records to determine the nature of plea bargaining requires very careful analysis.
- *Police attitudes.* Considerable debate took place in some ASAPs as to whether the police should have some input into the plea bargaining decision, with the police asking that bargains not be offered to people who had "caused trouble" or whom they knew to be regular offenders. In many sites, prosecutors acquiesced, but in others they rejected such matters as being irrelevant to the referral process.

13. Charge Reduction Systems

Systems which offer a reduction in charge from DWI in return for cooperation with a referral to education or rehabilitation became as common as the more traditional systems of sentencing under conditions of probation. The concept of "earned charge reduction" became a basic element in many ASAPs. Some jurisdictions offered the bargain to all defendants, others only to selected populations. The concept was popular with everybody except police and driver licensing

authorities, both of whom dislike the absence of a conviction for DWI. The charges to which the case is reduced vary widely, but almost all involve reduction either to a driving offense not related to alcohol or to a drinking offense not related to driving. Neither solution is acceptable to the system as a whole, since it prevents the acquisition of accurate, complete records transferable to other jurisdictions, does not obey the intent of the laws, and will later invalidate the diagnostic procedure for problem drinking drivers. Charge reductions, in other words, are used because they increase efficiency by increasing the number of guilty pleas and they encourage cooperation with a referral by means of a reward. Several jurisdictions solve the problem by means of a lesser included offense (e.g., Colorado used Driving with Ability Impaired by Alcohol) to which the original DWI charge is reduced, thus preserving a record of an alcohol-related driving offense. Several jurisdictions maintained a high conviction rate on the original charge by refusing the plea bargain concerning charge but offering a substantial reduction of penalties. In sum, plea bargaining coupling a referral to treatment with a reduction of charge should be regarded as a measure of only temporary usefulness and is not essential to a well-designed system. However, it does achieve two important objectives: speed of referral and efficiency of disposition.

14. The Health/Legal Approach

ASAP demonstrated conclusively that cooperation for mutual benefit between the courts and agencies of the alcoholism treatment system is feasible and probably beneficial. Without the possibility of a referral to a rehabilitation agency, there would be no reason for the courts to change their present practices. Without the strength of the criminal justice system to induce cooperation, rehabilitation agencies would not have the power to attract or retain these clients. Programs of voluntary referral or self-referral were again shown to be only marginally successful in terms of numbers and duration of contact. Court-coerced referrals were associated with increased numbers processed through the courts and with climbing arrest rates, though it is not known whether this pattern will continue after the departure of special funds. Criminal justice penalties of some kind seem necessary to the satisfactory functioning of the system, acting as both the carrot and the stick in the coercion process. This, in return, required some modification of criminal justice and highway safety attitudes. The early and traditional desire for a high "conviction" rate began to give way to uneasy content with a high rate of "satisfactory outcomes," i.e., acceptance of and compliance with a referral. Some form of criminal justice penalty was imposed in all cases. No pure diversionary programs were created by ASAP, though some came very close to eliminating penalties and even charges. There is no evidence to suggest that the present mix of penalties is any less severe than the penalties previously imposed by courts in ASAP jurisdictions, when the increased number of penalties is taken into account as well as their variety. Superficially a soft-line program, ASAP in fact remains firmly embedded in the criminal justice approach to human behavior.

15. Relationship with Legislation

Almost all ASAPs reported that existing legislation was not in line with the practice of the courts, and that many items of legislation "caused" or "encouraged" weaknesses in the system which included low referral rates, low conviction rates, slow action by the court, low arrest rates, brief probation periods, etc. The ASAP concept is apparently in conflict with many state statutes. Toward the end of federal funding, a trend became apparent in many ASAPs toward the enactment of legislation which brought statutes much more closely in line with court practices and ASAP objectives (e.g., Puerto Rico, California, Massachusetts, Washington, Wisconsin), especially by setting out referral to education or rehabilitation as a statutory option in drinking-driving cases. Other states, however, enacted legislation which threatened the present system for making referrals.

NHTSA is currently exploring the usefulness of legislation concerning mandatory/alternative sanctions, but as yet in most states a prospective ASAP director would be well advised to: clearly identify the relationship between present legislation and the courts; design a system which will work; and work with legislators and the courts to bring court practice and legislation into conjunction.

D. Conclusions

When ASAP first started, no one was aware of the magnitude of change which would have to be made in the attitudes, procedures, and goals of the "lower court" criminal justice system. Starting from an emphasis on traditional systems, where either the judge or the prosecutor was only a trier-of-fact and an imposer of sanctions prescribed by statutes, ASAP oriented the system towards the health/legal approach, wherein the adjudication participants were integrated into a total spectrum of involvement.

- The problems associated with the adjudication of drinking-driving cases arise from many sources and at all stages, but three may be said to predominate. First, the lower courts lack the resources and knowledge and procedures to develop and maintain effective systems spontaneously. Second, the population of drinking drivers is extremely large, and it contains many people addicted to a socially approved substance. Third, drinking-driving cases involve more than one agency and more than one branch of government, and systems designed to handle them encounter all the social problems of maintaining cooperation between the legislative, executive, and judicial branches.
- ASAP spent its efforts in two different but related directions. First was the attempt to bolster the existing court system to the point where it could cope satisfactorily with the traditional model of adjudication. Second and more important was the subsequent attempt to design and implement efficient court-based referral systems, in which the cooperation of all agents in the system made the identification and processing of drinking drivers to appropriate referral opportunities more important than the technical handling of the individual case. Systems which offered a reduction in charge from DWI in return for cooperation with a referral to education or rehabilitation became as common as the more traditional systems of sentencing under conditions of probation. The concept of "earned charge reduction" became a basic element in many ASAPs.
- ASAP did not impose outside theory on the courts. It worked with them and, in doing so, paid a heavy price. ASAP had to be extremely flexible as court systems responded to outside and internal pressures and revealed their fragility at every moment of change. NHTSA had to be flexible in accepting the achievement of one objective (e.g., increased referrals) even at the price of abandonment of another objective (e.g., records of conviction for DWI). The impact of the ASAP systems approach is evident, and they represent a major choice in criminal justice philosophy: to shift attention from trial to disposition system, from legal technicalities to case processing, from the individual judge to the concept of a court system, from an isolated sentence to a team interaction between all legal and public health agents.

ASAP was confronted with and solved problems of obtaining judicial respect and cooperation and streamlining court and data systems to accommodate vastly increased caseloads. ASAP demonstrated conclusively that the health/legal approach, which requires some cooperation between the

courts and the enforcement agencies and extensive cooperation between the courts and the agencies of the alcoholism treatment system, is entirely feasible and desirable to all parties attempting to solve the problem of the abusive drinking driver. Without question, ASAP and the ASAP systems approach have stimulated a revolution, the long-term effects of which may be the major contribution of the program.

V. ASAP PRE-SENTENCE AND PROBATION COUNTERMEASURES

A. Background

Before ASAP, almost no jurisdictions used the two complementary functions of pre-sentence investigation and rehabilitation under probation for drinking drivers. The legal concept of probation was common, i.e., as part of the terms of their sentence, offenders were placed "on probation," but referral to education or treatment was rare. Pre-sentence investigations took place in only a tiny minority of cases. There were four major reasons for this lack of activity:

- Few of the courts which handle drinking-driving cases possess either the resources or the personnel or the funds necessary.
- The concept of a differential response to the drinking behavior behind DWI scarcely existed in theory until the late 1960's and was not embodied in NHTSA policy until ASAP.
- Techniques for easily sorting offenders according to drinker type did not exist prior to ASAP.
- Many courts did not possess sufficient probationary authority, or did not believe that their probationary authority was sufficient to induce cooperation with a rehabilitation program.

Surveys conducted for NHTSA at the beginning of ASAP showed that some few courts in the country were operating referral programs based on some form of pre-sentence investigation and the use of probationary power and even staff, but the only nationwide programs then in operation were the AAA-publicized DWI "schools" and Volunteers in Probation, Inc. The tendency nationwide was clear: courts of general jurisdiction in metropolitan areas may have had probation departments, but they were rarely used for drinking drivers; almost no courts of limited jurisdiction possessed probation departments. Very, very few courts outside metropolitan areas possessed probation or pre-sentence staff. Most existing programs had been set up by activist judges using their own experience and knowledge, and their tendency was to refer only the worst offenders, the recidivists who most closely fitted the stereotype of the "alcoholic." No scientific referral criteria had been developed, and all programs relied on the initiative of an individual judge attending to the individual case. Few formal referral mechanisms existed. A majority of referrals were to AA or to "Court Honor Classes," though the Phoenix concept of an alcohol-safety school was receiving wide and positive attention. Evaluation was absent or inadequate, and the numbers flowing from courts to education or rehabilitation were pathetically small.

At the same time, a series of developments within the legal profession and the judiciary were encouraging the spread of the ASAP concept. In the late 1960's and early 1970's, all professional organizations were recommending the use of pre-sentence and probation in misdemeanor cases, including the National Advisory Commission on Criminal Justice Standards and Goals, the President's Commission on Law Enforcement and Administration of Justice, and the American Bar Association. NHTSA's own recommendation for the use of these capabilities in drinking-driving cases therefore complemented the desires of the judicial profession rather than being imposed upon unwilling courts.

New research in drinking-driving cases was showing the need for a more individualized response. Widespread dissatisfaction with the power of traditional penalties to deter recidivism in certain groups was substantiated by a series of studies. The concept of a "health/legal" approach to problem drinking drivers was growing more popular and more sophisticated. The new National Institute on Alcohol Abuse and Alcoholism quickly bolstered the concept of the effectiveness of comprehensive treatment programs, including those aimed at prevention and at drinkers in earlier stages of alcoholism.

When NHTSA embodied the concepts of pre-sentence, probation, and referral in the ASAP concept, it was therefore in the vanguard but not revolutionary, its concept supported by the best evidence available from medical and legal research. However, it should be emphasized that ASAP's experiments with pre-sentence investigation and probation were and are novel. At the beginning no one knew how to run them or whether they would work, and very few resources were available.

B. The ASAP Pre-Sentence Investigation and Probation Approach

The crucial importance of the pre-sentence/probation function to ASAP came from the Program's emphasis on the "problem drinking driver." This new target for highway safety efforts required that the problem drinking driver be identified and sent to some form of rehabilitation or treatment, and the courts were the only agency capable of performing this task. Thus, the *ASAP Guidelines* from NHTSA wrote: "There are two primary problems confronting the courts regarding the drinking driver. One deals with a lack of information concerning the nature of the individual's drinking problem, and the other is a lack of adequate sanctioning options to deal effectively with the drinking driver." An average of 15.5 percent of each ASAP's funds went to the courts (a level behind only those of enforcement and program management), and most of those funds went to the creation of pre-sentence/probation capabilities.

The significance of that choice by NHTSA was as follows:

- Had ASAP stayed with traditional punitive sanctions, or ignored discriminating individual decisions about referral, the court countermeasure area would have been a great deal easier and cheaper. It would have concentrated entirely on evidentiary matters and processing or data collection, remaining an orthodox "court improvement" program similar to others supported by those interested in judicial administration (e.g., the National Center for State Courts)
- ASAP was the first large-scale program to approach the misdemeanor courts with the idea of pre-sentence/probation for their population. No court in any community had attempted to move such large numbers of misdemeanants through a pre-sentence/probation system. The lower courts had no adequate models of their own, and the existing felony court models dealt with vastly fewer numbers of offenders. ASAP, in other words, invented the area and moved ahead of all other programs experimenting with the lower courts.
- Although scattered jurisdictions had established alcohol safety schools, and although some drinkers were being sent to alcoholism treatment under court control, no treatment agency in the country was used to receiving large numbers of coerced referrals, no treatment or education agency was accustomed to the wide spectrum of drinkers referred to them under ASAP, and very few courts were accustomed to making or monitoring referrals under probationary powers.

When ASAP started, therefore, the following basic questions remained unanswered about the pre-sentence/probation function: (a) who should do it? (b) how should it be done? (c) what numbers could be handled at what cost? (d) precisely what should be done? (e) would it be fair, efficient, and effective?

1. The ASAP Theory of Pre-Sentence Investigation and Probation

The objectives of ASAP for pre-sentence investigation were clear: "All individuals convicted of: (1) driving while intoxicated, (2) under the influence of alcohol, or (3) nontraffic alcohol-related offenses (should be) subject to a pre-sentence investigation to determine whether they are alcoholics, problem drinkers, or social drinkers." The aim was to identify problem drinkers among the population arrested for DWI, and to provide that information to the judge (or prosecutor) for use in selecting a disposition. The disposition was to include referral to a health agency as well as any traditionally punitive sanctions. NHTSA therefore envisaged the following steps:

- A background investigation which might include the use of driving and criminal records, interviews from family and associates, structured interviews and questionnaires, and medical/psychological examination;
- A diagnosis (based on the above information) of the degree of alcohol and driving problem;
- A recommendation to the court of the most appropriate course of action based on the previous diagnosis;
- Referral to the appropriate rehabilitation agency subsequent to a judicial decision; and
- Probation or followup contact with the individual to ensure compliance with the court's sentence.

These five steps reveal clearly their source in the philosophy of the probation profession as practiced in felony courts, and in the practice of the medical/psychiatric profession as regards diagnosis. In practice, ASAPs departed from the theory which created them, and each step was severely modified from its original concept, resulting in the emergence of wholly new concepts, tailored specifically for drinking drivers. The basic structure of five stages to the process remained intact, however, and was proven feasible by ASAP. Argument occurred more over how a step should be taken rather than whether or not it should be taken.

Only in one matter did ASAP depart significantly from probation theory: counseling by the probation officer. Within the probation profession, the desired goal is to have the individual probation officer to work with the individual offender on a basis sufficiently regular, frequent, and personal to allow for individual counseling. This concept came to be regarded by NHTSA as not feasible in light of the large numbers of drinking drivers and the small number of probation officers. NHTSA's view caused problems in various sites (which will be discussed later), and it represented a significant choice: the pre-sentence and probation function was to be primarily a processing effort aimed at supporting the judges, not a social worker effort aimed at supporting the offenders. Counseling shifted to agencies outside the criminal justice system. ASAP thus sought to add a processing technique which would enable cooperation between courts and rehabilitation agencies to take place; it did not attempt to change the nature of a court's objectives by replacing a "hard line" approach with a "soft" approach.

Before discussing how each of the five steps was undertaken, it is useful to observe how the theory changed in operational practice.

Background investigation. ASAPs tended to set up a structure for background investigations that proved too large for the job. Some elements proved too expensive and time consuming, or irrelevant or unnecessary in a majority of cases, or unnecessarily intrusive on the offender's privacy. The process of background investigation was therefore substantially modified during the course of the ASAPs and new, cheap, effective methods were developed. These represent a major contribution to the field of misdemeanor pre-sentence investigation.

Diagnosis. Diagnosis proved a misleading term, because its implications were more medical than could be achieved in most drinking-driving cases. The terms "screening" and "categorization" and "classification" replaced it rapidly, for the endeavor of the ASAP pre-sentence process was to divide offenders into three categories (usually social drinker, problem drinker, and "grey area") for the purposes of disposition and referral by the court system. ASAP did not (except in very few cases) attempt diagnosis to the depth implied by the medical connotations of the term. They did show that such in-depth diagnosis was not relevant to the needs of the courts except in very rare cases.

Recommendation to the court. Almost all ASAPs began by submitting written reports to the judges (or prosecutors), modeled on felony reports and containing extensive information and analysis. Most ASAPs included in the report a categorization of the individual as problem drinker or social drinker, and a recommended referral pattern for the judge to follow. A few ASAPs also included recommendations as to the whole disposition (i.e., amount of fine, jail or not, attitude toward license, etc.). Two major problems affected ASAP patterns as caseload increased. First, the time consumed in preparing and assembling extensive reports (as long as four pages) was too great in view of the numbers needed, with too little practical value in light of the limited number of disposition options available. All but a handful of ASAPs steadily shortened the length of these pre-sentence reports, and some moved to the point of providing only the minimum of information necessary to justify a certain pattern of disposition. Second, many judges were irritated when a pre-sentence investigator made recommendations of any kind concerning criminal justice penalties, with the result that most pre-sentence investigators retreated from such recommendations. The recommendations to the court then consisted of two important elements: a classification of the individual as to the extent of his drinking problem; a recommended choice of the disposition pattern to follow for referral (agency, and perhaps duration of court control).

Referral. This process was originated by the pre-sentence investigator, might or might not be accepted by the judge, and then carried through by a probation officer or someone else fulfilling the probation function. The two problem areas were agreement by the judge, and the technical procedures for the referral. Both problems were solved in a majority of cases by the emergence of routine referral patterns for certain classifications of offender, by growing familiarity of the judges with the pre-sentence investigators and the rehabilitation agencies, and by the design of efficient paperflow systems.

Probation. Followup and compliance remained the main problem with the ASAP system even after some years. Routines to measure attendance at assigned programs were developed with considerable imaginativeness and simplicity, and these handled the majority of cases, but exceptions and gaps tended to plague all ASAPs.

2. The ASAP Practice for Pre-Sentence Investigation and Probation

a. *Pre-Sentence Investigation Procedures*

In the methodology of the preceding five steps, ASAP made significant advances influential with all agencies and personnel concerned.

The first advance was the dissemination by NHTSA of criteria for an "operational definition" of "problem drinking driver," which provided an objective and convenient basis for all decisions categorizing offenders. Unfortunately, no analysis has been made of all the ASAP data to determine the scientific validity of that definition (which was based on previous research) but no ASAP reported finding it unsatisfactory. Of the various criteria in that definition, subjective reports indicate the following: very few drinking drivers openly admit to alcoholism voluntarily, though as many as 20 percent will admit to worrying about their drinking patterns; diagnosis as an alcoholic by a medical authority, prior to court action, is even more rare. The first two criteria of the NHTSA definition therefore detect only a small proportion of problem drinkers, and those so detected are a distinctive subset not representative of the whole. The weight of detection therefore falls on the third criterion, which asks for a combination of two or more characteristics. Among these, the BAC of 0.15 percent or more at the time of arrest seems to be a very good index, to the point that many pre-sentence investigators would be willing to use that alone as evidence sufficient for a referral as a problem drinker. (Lower BACs do not exclude problem drinking from consideration.) Prior records of either DWI or contacts with social agencies because of alcohol problems seem equally valid indicators, certainly justifying at least inclusion in the "grey area" drinkers. As for structured diagnostic tests, all sites gave some form of them, and though there were definite questions as to the reliability of some locally-developed tests or as to the use to which results were put, the concept of using diagnostic tests was universally popular, partly because they seemed accurate, partly because they offered greater objectivity and uniformity, partly because they were procedurally simple. In sum, all the elements of the NHTSA definition have proven operationally popular, and the definition itself seems properly cautious.

The second major assistance provided to pre-sentence operations by NHTSA was the development of a standardized test for screening drinking drivers into drinker categories. The instrument was a two-part questionnaire devised by the Highway Safety Research Institute of the University of Michigan and known as "Mortimer-Filkins" after its authors. The first part is self-administered, the second and longer portion an interview guide, both objectively scored, the two parts (in the revised version) taking some 60 minutes to complete. The accuracy of the instrument has been validated in tests at four ASAP sites, and it has been called "one of the best developed and most extensively field-tested diagnostic approaches available" by an independent evaluation (Jacobson). The instrument was designed for use by trained personnel in conjunction with other records (BAC, prior arrests, etc.). It represents a major contribution to the drinking-driving field and should be given serious consideration by any pre-sentence investigator. ASAPs which used Mortimer-Filkins without field-testing it formally reported one extra advantage and one main disadvantage. The instrument is apparently an excellent device for giving controlled on-the-job training to new pre-sentence investigators, perhaps the best single training method available since it reduces the degree of subjective interpretation. On the other side of the coin, many ASAPs found that it took too long to administer and that experienced investigators could use either just the self-administered portion or a smaller number of the listed items to achieve a satisfactory classification. The result was that ASAP pre-sentence units tended to develop "short-form M-Fs" to suit their own tastes, and while these are convenient, they have not been validated.

A significant feature of the self-administered portion of Mortimer-Filkins is that it can be administered and scored by clerical personnel, and that it can be used in a group intake procedure. As Jacobson comments, "Little special training is required for administration, and a moderately sophisticated clerical employee could probably handle routine testing, as long as he or she reads the *Manual* and conscientiously follows the prescribed procedures; however, some supervision should be provided at first for inexperienced personnel. Scoring the questionnaire is also a relatively simple matter and involves only basic arithmetic skills and an ability to follow instructions." Caution should be used, of course. The *Manual* accompanying the questionnaire is both technically and educationally invaluable, and its notes on the test's limitations should be carefully studied. Under proper circumstances, however, use of Mortimer-Filkins allows considerable improvement and savings in the entire pre-sentence investigation process.

Mortimer-Filkins represents a major contribution to the field. It should be repeated, however, that a minority of ASAPs used the full questionnaire and some used none of it, for a variety of reasons, and some ASAPs preferred other existing questionnaires. Most popular was the Michigan Alcoholism Screening Test or MAST, a 25-item questionnaire guide not designed for but also validated for drinking drivers. MAST has been criticized for being susceptible to lying by the interviewee, although lying is not regarded as a frequent problem in self-reporting questionnaires of this type. (For further information, see Jacobson.) Other ASAPs used other instruments (e.g., Alcadd, Drinking History Questionnaire, etc.), or designed their own. But all agreed that use of a diagnostic instrument of some kind was the only effective way to operate fairly, in terms of both accuracy, equity, and efficiency.

b. Pre-sentence Investigation Timing

The term "pre-sentence investigation" is a convenient misnomer to describe the process of collecting information which may occur at any stage of the adjudicative process: pre-prosecution, pre-trial, pre-disposition, pre-sentence, or post-sentence. All systems were used by different ASAPs, and most ASAPs seem to have used a mixture.

Pre-trial investigations. A large number of ASAPs at least start the process of information collection prior to trial, and some complete the process at that time. The information may then go to either the prosecutor or the judge or both, as needed. At that time, it is easy to transfer information from police or prosecution records: BAC at the time of arrest, driving history, and criminal history. Prosecutor-based ASAP systems also collect questionnaire data and interview data after arraignment in the case of not-guilty pleas, sometimes using the occasion of arraignment as the occasion for screening as well. In the case of both guilty and not-guilty pleas, some ASAPs collect interview and questionnaire information after an arraignment but prior to a formal finding of guilt or innocence. The judges use such techniques as taking the case under advisement or withheld judgment to enable the pre-sentence investigation to take place. In such systems, the information normally goes to the judge rather than the prosecutor.

Pre-sentence investigations. A substantial number of ASAPs follow the traditional system of conducting the investigation after a finding of guilt but prior to the imposition of sentence. The information goes to the judge, and sentence is imposed at a second court appearance.

Post-sentence investigations. In a small number of jurisdictions, the investigation takes place post-sentence under a blanket condition of probation such as "cooperation with ASAP."

In-treatment investigation. A small number of projects make blanket referrals to an intake or rehabilitation agency of all persons convicted of drinking driving, and the investigation is carried out by the treatment agency and consists of a diagnosis of level of drinking problem.

c. Probation Procedures

The NHTSA objectives for the ASAP probation function were less clear than those for pre-sentence investigation: "The major task of a probation office is to maintain followup contact with offenders placed on probation by the courts." It is the exact nature of the followup contact which provides problems.

First, probation may be simply and only a legal status, without any referral to rehabilitation or education. In such cases, the term "non-reporting probation" became popular, to signify that the offender had to take no positive action, and the probation office role was then simply to monitor arrest records to ensure that the probationer did not commit the offense again. (In non-reporting probation in some areas, the probation office also has the function of collecting fines paid by installment.) Some ASAP probation offices also used "reporting probation" with certain types of offender. Modeled on felony probation, this requires the probationer to report to his officer by phone or in person on a regular basis for the term of probation. Several ASAPs reported that this kind of probation tended to make the probationer dependent on the probation officer, but no statistical evidence for its merits or weaknesses was collected.

Second and more usually, the probation status was contingent on certain behavioral conditions set by the judge. Some judges set special conditions for individual cases, but in far the majority of cases the condition was acceptance of rehabilitation or education. In this area the probation officer had two phases of operation: 1) to select the referral agency and inform both probationer and agency of the referral and the conditions; 2) to monitor the probationer's attendance at the rehabilitation or education agency. Both areas provided considerable difficulty to the ASAP operations at first, but it proved fairly simple for ASAP management to iron out difficulties. It became clear that probation officers had to match probationer and agency carefully. Inappropriate referrals were frequent (often for lack of resources), and they became counterproductive when the probationer was blamed for "failing" when the real fault lay with an inappropriate referral. Better probation officers knew their referral agencies well and worked closely with them whenever difficulties arose. Others simply made routine referrals with interest only when a probationer's failure to attend was reported.

The monitoring of a referral required the development of simple and efficient monitoring systems, which varied in quality from ASAP to ASAP. Some few ASAPs did not monitor attendance frequently or regularly. Others developed effective and simple data systems (which included even self-reporting on AA attendance). Once the system is designed, monitoring can be done by clerical personnel supervised by a probation officer. Recordkeeping of this kind was in fact unpopular with a majority of ASAP probation officers, who felt their talents were underused, and the tendency in better ASAPs was therefore to design monitoring systems which were as automatic as possible and operated by bringing only exceptions to the attention of a probation officer.

At this point, the most crucial actions of ASAP probation officers became apparent, because failures to comply with the terms of a referral brought the need to make a decision concerning the revocation of probation and imposition of the original criminal sentence. This was an area for which no ASAP developed firm, transferable criteria. In some very few ASAPs, all violations of the conditions of probation were brought to the attention of the sentencing judge, but

in the majority of cases the probation officer was expected to make preliminary decisions: to contact the offender, decide whether he had justifiable reasons for failing to comply, to decide whether or not to bring him before a judge, to present the relevant facts to a judge, or to make a second referral to another agency. Some courts narrowed greatly the area in which their probation officers could make decisions. Others expected the probation officers not to bother them except as a very last resort. Therefore, only one recommendation can be made on the basis of ASAP experience: in the case of a court-coerced referral, revocation of probation must have credibility, and probation officers must be prepared to take specific action of some kind against violators. The task is difficult but essential.

Failures to comply with probation conditions also gave fresh life to the counseling function of probation officers. This issue plagued the probation operation throughout ASAP. NHTSA at first gave clear guidelines concerning this role: "The probation office may be involved in the rehabilitation process itself. Probation officers may conduct regular counseling sessions for probationers, both individually and on a group basis. This activity in some cases may be in addition to other rehabilitation in which the client may be involved." NHTSA's view reflected that of a majority of probation officers.

However, it was not generally popular with rehabilitation agencies, who complained that (a) probation counseling interfered with rehabilitation counseling and was inherently difficult because of the court base of the counselor; and (b) most probation officers had neither the time or the training to undertake alcoholism counseling. The issue became: how much counseling should a probation officer do? Heavy caseloads prevent him from counseling all cases, or even a majority. Lack of qualifications usually prevents him from alcoholism or psychological counseling. But the absence of counseling dehumanizes probation officers and makes their jobs overly clerical and (to them) boring, so that turnover becomes a problem. NHTSA eventually changed its original endorsement of probation counseling and encouraged sites to postpone the endeavor until its processing systems were more fully developed. The issue is still very much alive.

d. Probation Timing

Like "pre-sentence" investigation, the term "probation" is also somewhat misleading. Formally, one can only be placed on probation after a conviction. In practice many ASAPs had people "on probation" prior to a conviction or even prior to a plea. There is no essential difference between the two states of "probation," though the manner of entry into those states may have differences which are significant. Traditional probation is part of a sentence; conditions are imposed regardless of the offender's wishes, and he must comply with those conditions for a stated period or risk imposition of criminal sanctions. Though probation is usually to an offender's advantage (because it reduces the amount of punitive sanction), he does not voluntarily choose it. Under nontraditional probation, the conditions are offered to an offender with the clear understanding that he can choose trial at any time, in which case he has a chance of being found innocent of the charge. Normally, the concept of the earned plea bargain or an earned reduction of sentence is operative. If the offender behaves in certain ways, then charges and penalties will be less. If he does not behave in certain ways, then his failure is easier to note and to punish by proceeding with the original charge. Though coercive, there is a higher element of voluntarism in this concept.

The functions performed by traditional and nontraditional probation are identical, except at the very beginning and the very end. Proponents of nontraditional probation think that its more voluntary nature and higher prospective rewards give greater control over the offender, but

this has not been experimentally verified. Opponents think that it is unjustly coercive and therefore unfairly induces a person to give up the right to trial on the basis of the offense with which he was charged. Nontraditional probation seems to occupy less of the judge's time and involve fewer court appearances. (This was certainly true in systems which switched from traditional to nontraditional probation, such as Phoenix.) Systems using nontraditional probation seem able to give investigations to a higher percentage of arrested persons than do traditional probation systems, and this may be a determining factor in a jurisdiction's choice.

A major controversy between the two systems concerns the charge on which the person is ultimately convicted. Traditional probation tends to be connected with conviction for the original drinking-driving charge, whereas nontraditional probation almost invariably results in conviction for a lesser charge usually not related to alcohol. Either choice affects the system's records and perhaps its credibility, and there is considerable dispute as to whether earned charge reduction undermines the intent of legislation. Some jurisdictions solved the problem by convicting persons for a lesser included drinking-driving offense, but very few states have such a statutory offense.

The proponents of nontraditional probation argue that it speeds up the entire process of adjudication and referral, that it allows the offender greater freedom of choice, and that recidivists can still be handled because conviction after trial gives the judge a second chance to make a referral to rehabilitation (this time under traditional probation). The proponents of traditional probation argue that it preserves statutory intention, the right to trial, and the validity of records. It should be emphasized that the choice of traditional or nontraditional probation seems rarely to be made on the basis of treatment theory. A jurisdiction's preference will be dictated almost solely by the attitude of the judges and prosecutors, and they seem to choose mainly on the grounds of court efficiency and trial difficulties. Further research is clearly needed before either system can be recommended as superior in terms of preventing recidivism or deterring drinking-driving.

However, a major ASAP contribution in the area of probation has been to show that nontraditional probation is feasible and in some jurisdictions desirable. It has a particular importance in the area of plea bargaining, which plagues the handling of DWI cases in many jurisdictions where it has become universal and purposeless. When a jurisdiction does not think it can cease to engage in massive plea bargaining, ASAP has invented systems for nontraditional probation which make the plea bargaining purposeful and equitable. There is also some evidence that nontraditional probation is useful for those courts whose powers of formal probation are very limited, offering them a just method of achieving a referral to education or treatment which could not otherwise be achieved.

C. ASAP Pre-Sentence Investigation and Probation Findings

1. Pre-Sentence Investigation

Several problems plagued pre-sentence investigation during the early stages of the ASAPs. First was the tendency to be over-thorough. This resulted in the same procedure being followed in all cases, regardless of its usefulness, which impeded everybody. As ASAPs developed skill, the "screening" approach became much more popular, i.e., the concept that as soon as enough information was collected to indicate that the person was a problem drinker, the investigative process should stop. This concept (if accepted by the judges) decreases the load on the system and particularly the costly use of personnel. It is an essentially new approach to the pre-sentence investigation process, and it is not easily accepted by pre-sentence investigators unless they are suffering from overload. The second problem was underdiagnosis. As ASAPs continued, the proportion of

problem drinkers identified tended to rise substantially, suggesting that ASAP had at first concentrated only on extreme cases. Results from some ASAPs suggest still that other ASAPs continue to underdiagnose, restricting their problem drinker classification only to exceptional cases of alcohol-dependency. Some jurisdictions, of course, regard this as desirable caution, while others believe that it undermines the preventive process. The third problem was failure for various reasons to reach all the potential population. The ASAP process aims at giving a pre-sentence investigation to everyone, but as the numbers given in the next section show, few sites achieved that goal, and the reasons for incompleteness lay mostly in faults within the system which could be corrected.

ASAP was responsible for the development and validation of a screening instrument specially designed for use with drinking drivers. ASAP demonstrated the usefulness of an objective instrument for separating drivers into drinking categories, and it showed that this could be done efficiently. ASAP also demonstrated that the pressures of caseload may lead to the use of unvalidated instruments, less accurate than the validated tests but nonetheless useful because they improve existing procedures.

BAC at the time of arrest was a universally popular screening criteria, and a BAC of 0.15 percent or above was generally regarded as a specially strong index of problem drinking. The major problem in this area is the lack of BACs in many cases, particularly where implied consent refusals are frequent. This use of BAC as a diagnostic aid is new, and it has the added significance of providing a measure about which both police and pre-sentence investigators can agree.

Prior driving and criminal records proved valuable indicators where there was a substantial record of alcohol involvement. These records had the added benefit of helping to overcome the denial phenomenon frequent in problem drinkers. Difficulties arise where records are incomplete, inaccurate, or generally unreliable, and these problems must be solved by each local jurisdiction. The absence of a record does not indicate the absence of a drinking problem, especially in those jurisdictions where plea bargains to a nonalcohol-related driving charge are arranged. To preserve the validity of their screening, some ASAPs turned to special codes indicating that a drinking-driving charge had been plea bargained. Other major problems occurred where the records systems of neighboring jurisdictions interstate or intrastate did not match or could not be obtained.

A personal interview by the pre-sentence investigator for each drinking driver was the original intention of the ASAPs, but it proved so time-consuming that it began to impede operations in jurisdictions with high caseloads. In addition, such interviews proved both repetitive and unnecessary in a majority of cases where classification into drinker-type was the sole aim of the investigation. There was a developing tendency in more experienced ASAPs to downgrade the value of a personal interview for diagnostic purposes, though interviews may be necessary for many other reasons. Further, a personal interview unsupported by a record check and a diagnostic test proved a very unreliable diagnostic method, vulnerable to biases from the interviewer and concealment by the interviewee. This is an important conclusion (unfortunately unvalidated by careful ASAP research) since the method of diagnosis used most commonly in non-ASAP sites is the unsupported personal interview by either judge or court personnel or alcoholism counselors. Field reports indicate that such interviews tend to identify only extreme cases, invalidating the preventive and comprehensive elements of the ASAP approach.

Interviews with the offender's family, friends, and employer were used in only a few sites (the notable exception was Puerto Rico) and in exceptional cases. They proved too time consuming and in most cases unnecessary. Some ASAP investigators also report that they caused unnecessary trouble in the offender's life.

An in-depth medical or psychological evaluation by physicians, psychologists, psychiatrists, or psychiatric social workers proved unnecessary for the vast majority of cases, but most ASAPs definitely recommend retention of the capability for certain clear circumstances. These are: (1) where the administration of disulfiram (Antabuse) is contemplated; (2) where there is reason to suspect a serious untended medical or psychological problem that would affect the recommendation of a disposition; (3) where lying or denial is suspected; (4) where the person falls into the "grey area." A medical/psychological examination is expensive and time consuming, and, in the opinion of most ASAPs, it was better reserved (if given) until the probationary phase, as part of a referral rather than a pre-sentence investigation.

Clearly, then, the knowledge concerning the pre-sentence investigation needs of drinking drivers has increased vastly as a result of ASAP, since none of this information was previously available. The nature of the pre-sentence process can be specified: "The principal objective of pre-sentence investigation is the classification of drinkers for sentencing and referral purposes." The weight should be on the referral purpose, since many pre-sentence investigations did not attempt to get at factors affecting criminal penalties. The nature of that investigation is also clear: "Preliminary ASAP experience indicates that the most valuable and efficient PSI tools are BAC at the time of arrest, driver and criminal records, and [Mortimer-Filkins], including the self-administered questionnaire and the interview." Further, "the use of intensive, in-depth pre-sentence investigation is too expensive and time consuming for most sites . . . especially where a large volume of cases moves through the system." (1972 ASAP Evaluation).

Recommendations as to the superiority of one or other of the pre-sentence systems are not feasible, since each community will design a system to suit its own resources and principles. However, certain factors should dictate preferences:

- A jurisdiction should decide whether or not it wants to collect information on "all" drinking drivers, or at least as many as possible. If this is the goal, then the collection process should take place as early as possible; the later one waits, the fewer drinking drivers will be scrutinized.
- A main determinant of the time for investigation should be the component to which the information is provided, i.e., the prosecutor, or the judge, or the rehabilitation agency.
- A second main determinant should be the purpose of the information, which is usually related to the number and nature of rehabilitation resources. For instance, if a community has one agency for problem drinkers and another for social drinkers, then the collection of information can be very straightforward and quick, since its sole point is to decide which track an offender should follow. On the other hand, if a judge wants full pre-sentence information for his choice of punitive sanctions (e.g., amount of fine), more time may be needed. Again, if a rehabilitation agency wants diagnostic information, or if a probation officer has a large choice of rehabilitation agencies, the collection process will need to be more thorough, longer, and more selective.
- The collection of information should avoid burdening the court calendar. Most courts working with ASAPs found that court appearance scheduled solely for the

purpose of sentencing was not desirable because of the large number of cases and routine nature of sentence. They therefore devoted much ingenuity to various methods of combining the sentencing hearing with some other portion of the court's action. Sentencing appearances also tend to delay the process of referral considerably, and in some jurisdictions to reduce the length of time for which an individual can remain under the control of rehabilitation.

- The collection of information should not delay the process of referral. Many ASAPs found that elaborate and formal processes for investigation resulted in long backlogs, with the result that people were reaching rehabilitation agencies weeks and even months after the offense or after plea. Other ASAPs were getting offenders into rehabilitation within a week or ten days of arrest. There seems to be some opinion among ASAP staff that speed of referral may be positively correlated with rehabilitation success, though this was not experimentally tested. Certainly, a speedy referral ultimately reduces the workload of everyone concerned.
- Cases in which either a prosecutor or a judge fails to follow the recommendation of the pre-sentence investigator should be carefully monitored, and the reason for that failure should be analyzed in order to detect system weaknesses. Among the ASAPs, it was not unusual for judges to follow 90 percent or more of the referral recommendations, once they learned to trust the pre-sentence investigators.

2. Probation

As ASAP experience grew, some findings emerged, but they are subjective and unverified by testing.

- No probation officer should attempt alcoholism counseling until he has been specially trained.
- Counseling concerning court matters, especially the terms of probation, is a very legitimate role for a probation officer.
- Counseling concerning life problems other than alcohol is feasible as long as it does not interfere with therapeutic counseling.
- Probation counseling involves problems of confidentiality which may force the officer to choose unsatisfactorily between his two allegiances to the court and to the probationer, and clear guidelines should be established for both the probation officer and the client.
- Counseling should not delay either the pre-sentence process or the referral process, which are separate important functions. It should take place only after probation terms have been established.
- A probation officer may legitimately select a set number of clients whom he is qualified to counsel and allocate a set proportion of his work time to that counseling.

- The most effective role for a probation counselor is to motivate the probationer to attend rehabilitation or education agencies in a receptive frame of mind, but his legal role will make a sympathetic stance difficult.
- The probation officer's first allegiance is to the judge whom he represents, and his attitude toward the client cannot be the same as that of a rehabilitation agency.
- A probation officer should be willing, but not eager, to initiate the revocation of probation, and criteria for revocation should be clearly stated in writing.
- Prolonged or frequent counseling by probation officers is probably not productive or cost effective.

In summary, most ASAPs reported that counseling by probation officers should be carried out only under careful guidelines, but that it would and probably should take place to a certain extent. Unfortunately unmeasured was the effect of totally unsupervised probation, which has long been suspected to have beneficial effects with certain classes of offender. As the *1972 ASAP Evaluation* states, "It is also quite possible that the mere fact that an individual is on probation has a rehabilitative effect on some offenders. This could be true even though the probation may be accompanied by no formal treatment or rehabilitation." Many drinking drivers in ASAP areas were on unsupervised probation, and although no analysis is yet available, NHTSA hopes that later analysis of driver records will show whether it is an effective response for certain classes.

3. Location of Pre-Sentence Investigation/Probation Function

There is considerable variety among the ASAPs as to who performs the functions of pre-sentence investigation and probation. The *1972 ASAP Evaluation* makes the following observation: "These two functions are administered most effectively if they are combined in a single office, e.g., a municipal probation office. This facilitates the necessary degree of cooperation and communication." There is no doubt that a central unit of some kind is better from everyone's viewpoint, but there is still debate among the ASAPs as to which unit is best for the task.

A central probation department. Most misdemeanor courts still lack central probation departments or even individual probation officers, and, in several ASAPs, the funding of such units was a major contribution, particularly since the work of the ASAP probation unit tended to radiate into other cases and to become a popular countermeasure for local funding. Some ASAPs, however, encountered difficulty with existing probation departments, which proved inflexible in experimenting with new procedures or used ASAP staff for other cases or procedures. The problem arose especially where probation officers were accustomed to handling felony cases and used the same approach with drinking-driving cases, thus creating a large backlog.

A special ASAP unit. Several ASAPs used units which reported administratively to the highway safety agency though working for the courts. This worked satisfactorily, though the judges tended to be cautious and most ASAPs wanted to install the officers directly under court control.

Prosecutors' offices. In several cases, the ASAP pre-sentence investigators reported to the prosecutors and were wholly or partly under their administrative control. No greater difficulties arose here than in any other arrangement.

Rehabilitation agency. A few ASAPs used persons employed by an education or rehabilitation agency, usually trained alcoholism counselors. Although no definite evidence can be found, some ASAPs indicate that such counselors tend to be less oriented to the needs of the judge and more to those of the agency or the offender.

Community intake unit. Several ASAPs moved enthusiastically toward the creation of a specialized intake unit for all alcohol-related cases, including referrals from outside the criminal justice system. Collaboratively operated, such units were intended to reflect NIAAA's concept of comprehensive, cooperative delivery of alcoholism services. Some intake units associate themselves with a dominant treatment facility, while others belong to no single agency. Like a central probation department, community intake centers facilitate processing, and they may have the extra advantage of encouraging superior cooperation from the rehabilitation agencies.

4. Personnel Qualifications for Pre-Sentence Investigation/Probation Functions

The qualifications of the persons performing pre-sentence and probation functions also varied considerably. Probably a majority of such persons were recent university graduates unfamiliar with the DWI population or with the bureaucracy of the criminal justice system. They learned quickly, but many also wanted to move into counseling and found the DWI process benumbing. Former police officers constituted a second and very different group. Used to paperwork and to dealing with people, they functioned efficiently and forcefully, and they tended to be more patient with system problems and routines. Some ASAPs, however, found the officers too punitive and unimaginative. A third and important group consisted of recovering alcoholics. Their motivation tended to be extremely high, and they were not easily deceived by denial from problem drinkers. Like the police officers, they tended to take a hard line, but their ability to identify with problem drinkers sometimes gave them advantages in providing motivation. A fourth group consisted of volunteers, either doing clerical pre-sentence investigations or acting as supervisors for persons on probation. This group's performance was unfortunately not evaluated, but several ASAPs spoke enthusiastically of their work and sought expansion of their use. In sum, each group has its own advantages and disadvantages, and any of them may function successfully.

There was considerable sentiment among ASAP probation officers to divide the pre-sentence/probation activity into its various elements and allow individuals to choose those elements which they found most congenial. The following divisions were evident:

- *Record check.* When well organized, this function can be performed by clerical or police staff accustomed to such work and need not occupy the time of counseling-oriented probation officers.
- *Pre-sentence interview.* Regarded universally as a professional function and therefore requiring a professional interviewer, nonetheless much of this function can be handed over to sophisticated clerical personnel, especially if a group intake is used. Some ASAPs chose to give every offender an interview; others selected only certain persons for interview.
- *Probation intake.* If probation was anything but a formality, probation officers regarded the intake procedures as crucial in ensuring that probationers understood all the terms of the legal disposition, the nature of the referral, and their rights and obligations. Since large proportions of the DWI population are poorly educated, an

interview to determine comprehension was often essential. In several ASAP probation departments, individuals specialized in intake interviews.

- *Testing.* Routine screening tests may be given by high-grade clerical personnel or by probation officers. Psychological and physical testing, of course, belong properly to persons trained in the administration and interpretation of such tests and are not normally carried out by probation officers.
- *Counseling.* A matter of personal preference, counseling nonetheless is a professional skill and should be reserved for persons with professional credentials. There is considerable sentiment that alcoholism counseling should remain the prerogative of specialists with proper training, since it is a particularly difficult task. The solution adopted by some ASAPs was to provide alcoholism training to as many pre-sentence investigators and probation officers as possible.
- *Supervision and monitoring.* A regular duty of any probation officer, this function also has tasks which are more usefully performed by clerical personnel, reserving the important decisions for professional probation officers.
- *Revocation of probation.* A particularly difficult task, this was often unsuccessfully mixed with other duties, and in becoming everyone's responsibility it became no one's. Because of the importance of probation revocation to the offenders, to the judges, and to the credibility of the system, some ASAPs created specialists in this area to whom other probation officers brought possible violators, and this seemed a desirable arrangement.
- *Administration and management.* Each ASAP unit requires a clearly defined supervisor who is responsible for all management decisions and for maintaining consistency between the various probation officers. The supervisor should have constant access to a judge and a prosecutor for discussions concerning policy and for problems with individual cases.
- *Recidivism specialist.* Some experienced ASAPs appointed an alcoholism counselor tasked with dealing only with recidivists (or perhaps multiple prior offenders). Since recidivists represent a major problem to the system, and since recidivism is a measure of the system's success, this seems to be a sensible procedure, but its effectiveness has not yet been measured.

5. Volume and Caseload

The single greatest anxiety of ASAP pre-sentence and probation staff was their ability to handle the large and steadily increasing caseload. The *1972 ASAP Evaluation* comments: "Because of drastically increased enforcement activity in ASAPs, many courts, even with greatly increased facilities, have been swamped by a flood of cases. The pre-sentence investigation units in nearly all ASAPs, however, have been able to handle the caseload. Although there is little specific data, it appears that there is a minimal backlog of cases awaiting pre-sentence investigation." The latter portion of that statement seems over optimistic, for two reasons: first, as arrests continued to increase, backlogs or delays developed until the pre-sentence procedures had to change; second, in many areas the courts referred for pre-sentence only that number of people which the investigators could handle. The result is that final advice on the volume of cases which a pre-sentence/probation

system can handle will have to await the analysis of long-term ASAP operations. For the moment, only preliminary evidence can be given.

The ultimate objective of an ASAP is to give some form of pre-sentence investigation to the total available population. Available population was variously defined as all those arrested, all those charged, or all those "convicted" (not necessarily convicted for the original charge). Numerous ASAPs gave pre-sentence investigations to all those "convicted." In a smoothly functioning system, the main limiting factor in this area is the tendency of some judges to make their own immediate pre-sentence decision in certain clear cases, with a resultant mandate into rehabilitation. However, when the proportion of those arrested is examined, the number given pre-sentence investigations dropped sharply, often to less than half the proportion of those convicted. The numbers depended largely on the nature of the pre-sentence investigation. The *1972 ASAP Evaluation* reports, for instance, that ASAPs made a total of 49,218 record checks, 27,854 interviews, and 12,193 in-depth examinations. The total number of arrests was 116,030.

These figures should not be taken as guidelines because they include many ASAPs in the preliminary stage of operations, and one ASAP characteristic is a dramatic increase in the number of investigations performed as the system irons out its problems. For instance, the older eight ASAPs gave pre-sentence investigations to a typical 43 percent of convictions in 1971, but in 1972 that percentage had increased to 78 percent. The important factor seems to be design of an effective processing system, rather than inherent limitations in the pre-sentence capability. In other words, the issues which determine the number of pre-sentence investigations given are all susceptible to technical solutions rather than being determined by the amount of resources available, once a minimum of resources has been created.

Another limiting factor is the individual caseload which a probation officer or pre-sentence investigator can handle. This too depends on processing techniques. For instance, in one ASAP which began with the felony model of pre-sentence investigation, the staff became exhausted and a backlog developed even though each pre-sentence investigator was conducting an average of 10 interviews per day. However, a change to the screening concept and group intake decreased the average of interviews to three per day while increasing the average number of investigations completed to more than 30 per day, thus eliminating the backlog and eventually allowing the transfer of staff to other functions. Similar changes occur when the definition of "probation caseload" is examined. If a fully supervised probation is implemented, then a caseload of between 50 to 80 cases seemed to be as many as a probation officer could handle. However, when various other forms of probation management were developed, the per officer caseload could rise as high as 600 without difficulty, with each officer still maintaining professional probation operations with 50 to 80 cases. Unfortunately, no analysis was made of the details of these changes or the real significance of "caseload" so the above figures should *not* be taken as guidelines but simply as illustrations of the importance of designing a suitable system.

ASAP experience suggests the following guidelines concerning volume and caseload:

- The number of PSIs given is determined by the design of the system, and the purpose of the investigation. If the purpose is primarily to sort drivers into their drinker category so that a rehabilitation track can be identified for the disposition of the case, then a substantially larger number of PSIs can be completed. Establishing further objectives for the PSI will reduce the proportion of PSIs given.
- It is possible to make a record check on all persons arrested. This will enable categorization as to drinker type of about half of the total population without

further action, particularly identifying those with the most extreme drinking problems and those falling into the social drinker classification by NHTSA definition. (The absence of a BAC reading, as in implied consent refusals, will make the record check less useful.)

- In a prosecutor-based system, it is possible to give a diagnostic test to 90 percent or more of the arrested population. In a judge-based system, the proportion will be lower, unless the judge is using the same charge-reduction system as do prosecutors. Waiting for formal conviction will reduce the number of PSIs dramatically, usually to less than half of those performed under other systems.
- Since investigators cannot refuse to undertake a requested PSI, and since caseload continues to rise, pre-sentence systems should be constantly redesigned to cope with caseload. An increase in personnel may be necessary, but not automatically so.
- Within a pre-sentence/probation unit, strict attention should be paid to the various functions performed, and the unit should be organized along functional lines. Personnel should be assigned to each function, rather than having all personnel perform all functions. "Caseload" can then be realistically measured, and different performance standards set for each function.
- "Caseload" is drastically affected by the duration of probationary control imposed by the judges. This varied from as brief as 6 weeks to as long as 2 years in different ASAPs, with a tendency for problem drinkers to be on longer periods of probation. The attitude of the rehabilitation agencies toward treatment also affected the period of probationary control. For social drinkers, most such agencies found a brief period (6 months) the maximum necessary. For problem drinkers, 6 months was widely regarded as too brief a period, with 18 to 24 months regarded as more desirable.
- Caseload will also be dramatically affected by the quality of the records system. For instance, a manual records system will obviously require more work from pre-sentence investigators, and a good reporting system dealing with repeat offenders will involve more work from probation officers dealing with revocations.

The remaining central issue is the proportion of problem drinkers, social drinkers, and unidentified or "grey area" drinkers categorized by the pre-sentence process, because these proportions drastically affect the caseload of probation. ASAP statistics are unfortunately not very useful in this regard, since the proportion of problem drinkers to the total varied from less than 20 percent to more than 70 percent at different sites. Those proportions depend on three factors: (a) the design of the system which brings the offenders to pre-sentence; (b) the criteria used for categorization, in both theory and practice; (c) the availability and nature of referral resources. The general opinion among pre-sentence investigators was that somewhere between 60 and 80 percent of the arrested population is in trouble with alcohol, or perhaps even higher, and that official classifications as "problem drinker" run below the number of people who are actually problem drinkers.

6. Transfer of Collected Information

One final matter concerning the methodology of both pre-sentence investigation and probation was of importance to ASAPs: the transfer of collected information. The following issues were involved.

- *Collection of existing data.* Many ASAP pre-sentence investigators at first wasted effort by duplicating files already partly collected by the police or for the prosecutor. As regards the BAC information and prior driving and criminal history, it is productive for the original files to be transferred to the probation office rather than for new collection to be undertaken.
- *The writing of extensive, detailed pre-sentence and probation reports.* Judges may wish to have full reports written until they have tested the mettle of the support staff. Otherwise, full written reports should be reserved for difficult cases, while the routine cases are handled with very brief summaries and recommendations. For a drinking-driving pre-sentence report, two double-spaced pages is lengthy. While the wishes of the judges determine the nature and length of reports, pre-sentence and probation staff should not assume that a judge continues to want detailed analyses.
- *Treatment agency reports.* Reports from treatment agencies concerning the effectiveness of treatment or education must be strictly limited according to the confidentiality rules promulgated by the National Institute on Alcohol Abuse and Alcoholism (*Federal Register*, July 1, 1974). Most treatment and education agencies not directly under court control will report only attendance, or a violation of probation which affects attendance (such as drunkenness).
- *Privacy Acts and Freedom of Information Acts.* The effects of the Privacy Acts and Freedom of Information Acts operative at the federal level and now entering state legislation were not determined by ASAP, but some systems report that their information flow may be challenged. Particularly where computerization of records is involved and at the pre-sentence stage, care should be taken to conform with the local and state situation. NHTSA is currently preparing an analysis of these issues.
- *Pre-sentence reports.* Pre-sentence reports were used by a minority of treatment agencies, contrary to expectations. Most treatment agencies prefer to collect their own records for both diagnosis and treatment, regarding them as more reliable and particular than those of probation offices.
- *Revocation of probation information.* Information which may lead to a revocation of probation may enter one unit of the system (e.g., police, treatment agency) but not go to either the probation officer or the judge or the prosecutor. Adequate communication of this information should be ensured.

D. Conclusions

The state-of-the-art of pre-sentence/probation in drinking-driving cases has advanced enormously as a result of ASAP, but it has still not reached the stage where definite research information can be provided to beginning jurisdictions. However, four points have become clear:

- The entire ASAP process depends on the strength and nature of the pre-sentence/probation process. This is the control mechanism that determines what will happen to a large proportion of the arrested population and upon whose effectiveness the adjudication process comes to rely. Further, the nature of rehabilitation and education will largely be determined by the actions of pre-sentence/probation, since the latter determines the entry population. Though pre-sentence/probation personnel have very little authority

over the enforcement of drinking driver laws, they represent the most significant new functions added to the control system by ASAP, and in the long run they may influence the level of enforcement and adjudication strongly.

- ASAP has demonstrated that the pre-sentence/probation process is feasible with the lower courts and has developed a new screening and referral concept which is adaptable to the huge caseloads involved in alcohol-related misdemeanors. Though there is continuing experimentation, many ASAPs have steadily developed workable, practical systems which can be implemented in any jurisdiction.
- Certain general principles for operation can be determined. Equity and efficiency suggest that any jurisdiction should give pre-sentence investigations to as high a proportion of the arrested population as possible, according to standardized criteria. Case-load dictates that the pre-sentence investigation differ from that traditional in felony cases, so that experimentation is necessary. Exhaustive investigation of all cases is not necessary, especially if the NHTSA criteria, group intake, and validated diagnostic tests are used. The credibility of the system will depend on (a) the usefulness of the PSI results, and (b) the system for revoking probation. Personnel and procedures should be carefully matched, so that unqualified personnel are not performing certain functions, and so that procedures do not provide an unnecessary burden on personnel. An expectation of 80- to 90-percent efficiency is not unrealistic after a system has had time to develop.
- The research evidence is not sufficient yet to indicate whether early or late "probation" is more effective as a mode of response by the criminal justice system, except in terms of local realities. The point at which a person should go on probation will be determined by the dynamics of the local courts. The sole recommendation which can usefully be made is that any system dissatisfied with its present method of achieving referrals (whether traditional or nontraditional) should examine the opposite method to determine whether it could be used instead of or as well as the existing procedure.

VI. ASAP EDUCATION AND REHABILITATION COUNTERMEASURES

The education and rehabilitation component of the ASAP system is the least familiar of all countermeasure areas. Misconceptions about its nature, objectives, and failings are so widespread that it is necessary to make clear what ASAP did *not* try to do before discussing what it did achieve.

- ASAP does not advocate replacing traditional punitive sanctions with rehabilitative sanctions, and it is not a diversionary program. NHTSA has always advocated adding rehabilitation to traditional sanctions: "All offenders should receive some type of traditional sanction or penalty." Misconceptions arise because courts cooperating with ASAP often set aside part of the punitive sentence on condition of cooperation with education or rehabilitation.

- ASAP did not fund large rehabilitation efforts, and almost all local funds went into education rather than rehabilitation. NHTSA allocated special funds in this countermeasure to an evaluation effort that proved very important.

- ASAP did not expect education or rehabilitation alone to prevent recidivism, only to lessen it with appropriate drinking drivers when used in combination with other sanctions. Certain ASAPs seem to have achieved this limited objective.

- ASAP rehabilitation efforts did not "fail." Their results were less than had been hoped, and NHTSA has grown increasingly uneasy with the rapid growth of unevaluated modalities, but the Program's overall results have been consistent with those of other treatment programs.

A. Background

Almost everything which the ASAP education and rehabilitation countermeasure attempted was new, and it is important to place the endeavor against its historical background.

1. Treatment of Alcoholism

The art of treating alcoholics is not well developed, and neither the causes nor cures for problem drinking are well understood. ASAP began almost simultaneously with the creation of the National Institute on Alcohol Abuse and Alcoholism in the U.S. Department of Health, Education, and Welfare, and the Institute's first report to Congress (*Alcohol and Health*, 1971) is instructive:

"The variety of people afflicted with alcoholism is probably as varied as humanity itself, and a variety of treatment techniques have been developed and, hopefully, are waiting to be developed for this field. Although each technique has its partisans, the critical research has not been done to demonstrate convincingly which approach works best with which specific person . . . Alcoholism is a complicated disorder, but it can be treated successfully. Any technique used indiscriminately will be much less successful. When the proper treatment modalities are utilized for the unique needs of the particular patient, however, we indeed have cause for optimism."

It was, of course, impossible for ASAP to find the "proper" treatment for the "unique needs of the particular patient" when ASAPs were arresting more than 100,000 drinking drivers each year. In fact, the Program had to use certain techniques "indiscriminately," especially during the first two years. The central issue about any alcoholism program at the moment is not whether it

works with all drinkers but whether it works cost-effectively with drinkers who would otherwise not have been touched at all. In this respect, ASAP was particularly interesting to the rehabilitation experts because it tended to reach persons in earlier stages of problem drinking. It thus offered the potential for prevention which has been the constant desire of both alcoholism experts and Congress.

2. Alcoholism and Punishment

Concepts of alcoholism as a disease or disorder have only recently replaced the belief that it is a moral problem symptomatic of a weak character. The normal attitude of society toward problem drinkers has been punitive, and only in the 1970's have laws begun to change so as to remove the punitive attitudes which they embodied. Because drinking-driving presents a clear danger to others' safety, it is regarded as a most serious form of intoxication, and most statutes have adopted harshly punitive approaches to it. Whenever the punitive and nonpunitive approaches to alcoholism come into debate, there is a tendency to take an "either-or" stand, as in the Uniform Alcoholism and Intoxication Treatment Act which completely decriminalized public intoxication. Arriving in the early seventies, ASAP was interpreted widely as a soft-line alternative to criminal sanctions for drinking drivers, whereas the ASAP "health/legal" approach deliberately and innovatively combined punishment for the offense of drinking-driving with potential rehabilitation for the underlying drinking behavior. ASAP does not remove punishment; it seeks to avoid meaningless and ineffectual punishment by being discriminate.

The distinction is important. No single sanction is effective in deterring all drinking drivers, but all sanctions deter some drinking drivers. ASAP's endeavor was to create a spectrum of sanctions suited to the spectrum of drinking drivers, some of whom will benefit only from rehabilitation. Moreover, no single sanction is ever imposed in a drinking-driving case, since any action from arrest onwards is perceived as a sanction by the driver. The proper search is for certain equitable mixtures of sanctions which will work with certain types of drinking drivers. This is precisely the emphasis of the ASAP systems approach, applying any or all actions of the system as appropriate, increasing or mitigating punishment as proves effective, responding to public safety needs and alcoholism needs flexibly.

3. Treatment and the Courts

There was no evaluated court-based system for referrals to treatment prior to ASAP. A tiny group of isolated courts was experimenting with referrals, mostly for extreme cases. Treatment agencies were averse to taking court referrals. Links between courts and treatment personnel existed neither in philosophy nor procedures. At the same time, many judges were unhappy with the ineffectuality of their operations and sanctions, and they tended to believe the rehabilitation approach would prove more effective, purposeful, and interesting. Many treatment agencies responded with pleasure to the idea of increased referrals. But neither group was markedly analytical about the nature of the persons referred or the treatment needed for such numbers, with the result that neither group responded well to the complexity of the referred population until ASAP was well under way. The ASAP experience was totally new to both courts and treatment agencies, and in every city it created major shifts in procedures and attitudes.

4. Education and the Courts

The courts quickly accepted the idea of referral to alcohol safety schools. It seems a mild and beneficial sanction, probably constructive, and useful as a tool in sentence bargaining. Judges

were familiar with driver improvement courses, and surprising numbers had heard of "DWI Phoenix." Their ready acceptance of education was hasty and uncritical, since no scientific evaluation had demonstrated any astonishing effectiveness for any educational program, and, in fact, the quality of most existing alcohol safety schools was dubious. Few professional educators had been involved with the development of alcohol safety curricula, and there was no knowledge of what educational techniques would reach particular groups of drinking drivers. The burden of developing the pre-ASAP schools had fallen on a very few individuals, and they (no matter how talented) had had time neither to evaluate their own models fully nor to develop alternatives. ASAPs were left free to develop the schools in any direction they chose. At the beginning, therefore, the schools were neither designed nor evaluated with the degree of professionalism that their ready acceptance required, and the many changes which experience necessitated reveal the number of errors that remained in the existing state-of-the-art.

5. Effectiveness Evaluation

Systems for evaluating the effectiveness of a referral system simply did not exist prior to ASAP. Methods and criteria for evaluating the effectiveness of alcoholism rehabilitation programs are only now being developed. Court actions had never been evaluated successfully, and the only criterion for effectiveness was "recidivism"—meaning solely rearrest. Records throughout the system were inaccurate, incomplete, and unreliable. Many courts did not keep records of dispositions. Treatment and education agencies did not know what "success" meant in quantifiable terms and often did not even keep attendance records. Highway safety and police records dealing with subsequent violations and accidents are notoriously unreliable, yet these were the only two criteria used at the beginning to evaluate effectiveness. It is extraordinarily difficult to set up a scientific evaluation to which the criminal justice system (especially the judges) will adhere, because such ideas as "random assignment" and "untreated control group" seem to contradict basic criminal justice system pretensions. Thus the task of evaluation at both the local and national levels was enormous, its eventual difficulties not even originally anticipated. A serious limitation was ASAP's short duration, because both alcoholism, accidents, and rearrests occur over long periods and require enduring and accurate evaluation schemes if "recidivism" in any area was even to be estimated. Baseline data for comparison was clearly inadequate in all areas.

The task of referring drinkers into education and rehabilitation countermeasures looked much easier than it was in fact. When ASAP began, people suspected (but did not know) that education and rehabilitation would prove effective with some drinkers whom punitive sanctions did not deter. They hoped that the differential would be so great as to show up in accident and rearrest records. They assumed that effective schools and treatment programs would develop spontaneously at the local level when seed money was provided. In fact, the state-of-the-art in both education and rehabilitation countermeasures was much less developed than was commonly believed, and the mechanics of referral and especially of evaluation turned out to be extremely difficult.

There was a dangerous potential for disillusionment. Neither the highway safety experts nor the criminal justice system knew much about alcoholism treatment—indeed they were ignorant of both its goals and methods. Some believed wrongly that there is no "cure" for alcoholism and that it was therefore not worth trying. Greater numbers believed naively that all one had to do was get the drinking driver into education and rehabilitation and he would be cured almost overnight. At the beginning of ASAP, therefore, there could be three results from experience with the education and rehabilitation countermeasure: swift disillusionment, incautious acceptance, or recognition that much more needs to be learned. NHTSA has now adopted the third attitude, but other agencies with less knowledge have succumbed to either of the first two.

B. The ASAP Rehabilitation Approach

NHTSA stayed deliberately away from funding rehabilitation programs, this being the responsibility under a joint agreement with the National Institute on Alcohol Abuse and Alcoholism. At the ASAP level, less than 10 percent of project funds went to rehabilitation and education, attached to specific items: alcohol safety schools; chemotherapy; a few samples of group therapy; and the cost of the referral and monitoring process. NHTSA intended to fund primarily a referral mechanism (of which the schools were a part) which would integrate courts with community treatment agencies, and the modalities were intended all to be transitional—the schools were to refer on to other agencies, the group therapy was to be brief, the in-patient treatment to be emergency only, the chemotherapy to support other forms of treatment, etc. The overall intention was that those drinking drivers who needed long-term treatment would be discovered and referred by the ASAP-supported agents, not that ASAP would provide all the needed rehabilitation. Unfortunately, because of the lack of community rehabilitation resources and the difficulty of working with the courts, a minority of persons entering the ASAP system received long-term treatment. By far the majority went only into the ASAP-supported, short-term modalities, mostly into the schools, which were not intended to be rehabilitative. Only after some years could some ASAPs provide appropriate long-term referrals. This is disappointing if only because it means that we can still not truly evaluate the effectiveness of a court-based rehabilitation system.

NHTSA's choice not to fund large-scale rehabilitation efforts was nonetheless justifiable. The 1972 *ASAP Evaluation Report* states that "it was not considered desirable to emphasize quantity to the exclusion of quality in such programs," and "until reductions in subsequent crashes and violations could be observed among those persons exposed to rehabilitation programs, it was not considered appropriate to expand such efforts on a large scale—at least not with transportation funds." Accordingly, NHTSA spent a large proportion of their efforts in this countermeasure on evaluation, where the greatest long-term payoff was visible. They did not fund development of model educational curricula. They did not fund research to discover what education or rehabilitation might work. They did not fund large efforts to train educators or rehabilitation agents. (The sole and late exception was the development and testing of a new short-term therapy called Power Motivation Training.) In sum, their funding was limited, specific, and purposeful.

1. ASAP Rehabilitation Modalities

All ASAPs created and/or supported *alcohol safety schools*, but there was no attempt at nationwide standardization. Local initiative determined the intention, content, structure, duration, and cost of the schools. Some were for all drinkers, some just for social drinkers, some mainly for problem drinkers, and some ASAPs had three or four different curricula under the same general heading. The schools were by far the most used modality; in 1973, for instance, 71 percent of all persons entering the countermeasure through ASAP went to the schools. *Short-term group therapy* was the second most popular modality, with 11 percent of all entries in 1973. Slightly more than half of all ASAPs sponsored special group therapy, while others later used one level of the school as a group therapy occasion rather than a didactic situation. *Alcoholics Anonymous* emerged as the third most popular modality. After a slow start, by 1973 nine percent of all entries were going to AA, and some 40 percent of the ASAPs had actively cooperating AA chapters, and, as AA grew accustomed to ASAP, this level of activity was increasing steadily. *Chemotherapy* (using disulfiram) was experimental and optional, with the result that less than a third of the ASAPs included it as a modality, and it was less popular with the second wave of ASAPs than with the original group. In 1973, 5 percent of all entries received chemotherapy, most of them from a few ASAPs. *Individual therapy* showed a similar pattern. Two-thirds of the original ASAPs offered it to a limited extent.

but less than a third of the second group did so. In 1973, only 3 percent of entries went into individual therapy, though it is thought that the proportion entering individual therapy as a result of ASAP efforts may be considerably higher. *In-patient therapy* was offered by less than 20 percent of ASAPs to only 2 percent of those entering rehabilitation, mainly for detoxification.

The types of modality offered and the numbers entering each modality indicate that NHTSA stuck to its intention of offering only short-term transitional rehabilitation and education. The picture, however, changed dramatically as individual ASAPs developed. Better ASAPs widened their referral networks and increased the proportion of persons entering long-term therapy without using transportation funds. Had the Program continued, it is clear that this would have been a major direction for further development.

By no means all drinking drivers arrested in an ASAP jurisdiction went into the education and rehabilitation countermeasure. For example, in 1973 there were 120,813 arrests in 26 ASAP sites. Of this number, 83,626 or 69 percent were eventually processed (meaning convicted, investigated, or entered rehabilitation); only 52,047 or 44 percent received a diagnostic evaluation; and 48,743 or 41 percent entered an educational or rehabilitation program. Drop rates became important. In 1973, the modalities experienced the following drop rates: alcohol safety school, 11 percent; group therapy, 11 percent; chemotherapy, 31 percent; in-patient, 8 percent; individual therapy, 22 percent; Alcoholics Anonymous, 8 percent. Drop rates tended to decrease as ASAPs became more expert, but it is still clear that a significant number of people failed to complete the modality intended for them. In 1973, a total of 34,448 people completed rehabilitation or education.

The proportion of arrested persons completing rehabilitation shows how difficult it was for the rehabilitation component to get operational. At the beginning, almost all ASAP communities lacked adequate education and rehabilitation resources, and some had next to none. In the absence of experienced agencies, without funds for long-term treatment, and lacking standard models for education or rehabilitation, all ASAPs had to create the referral network from scratch. (Eleven sites eventually also received NIAAA funds for treatment, but these were delayed.) Given a rehabilitation structure, ASAP had next to win cooperation from the courts. This took an inordinate amount of time and energy, and the flow of cases was at first spasmodic and unpredictable. It led quickly to a third difficulty: inappropriate referrals. In characteristic middle-stage ASAPs, the judges were referring people capriciously; the management, diagnostic, and monitoring procedures were loose; instructors and rehabilitation agents were inexperienced and overwhelmed. The rehabilitation system tended to be either swamped or underused, and as the difficulty of suiting modality to client became evident, improvisation was universal. Eventually the number of drop-outs, failures-to-comply, and failures-to-complete reached proportions large enough to make attention to appropriateness of referral a necessity. At this stage, feedback and monitoring systems began to develop, with the ASAPs paying much more attention on the one hand to the mechanics and procedures of referral and on the other to the effectiveness of their modalities. As evaluation results began to flow, the question of effectiveness was so important that many programs began a complete revision of their education and rehabilitation system. The characteristic of late-stage ASAPs was emphasis on the problems which indicated themselves as recidivism to the courts and as appropriateness to the rehabilitation agents.

ASAP's slow growth leaves an important question: did ASAP ever get enough people into the right modality for the right amount of time to allow us to evaluate the effectiveness of rehabilitation for drinking drivers? Certainly no evaluation results can be conclusive. The education and rehabilitation countermeasures were hasty and unstable, and they varied widely from ASAP to

ASAP; there was no nationwide consistency to permit aggregate evaluation. Of the 48,743 persons entering the countermeasure in 1973, 71 percent went into education. Did enough people enter rehabilitation itself for ASAP even to be considered a rehabilitation program? With the period of control which the courts exercised varying from 4 weeks to 2 years, and with the period of time used by alcohol safety school varying from 1 weekend to 8 weeks, how crucial was time alone in determining effectiveness?

Appropriateness of referrals emerges as another major issue. Of the 48,743 persons entering the countermeasure in 1973, 32 percent had been diagnosed as social drinkers, 43 percent as problem drinkers, and 25 percent as unidentified or "grey area" drinkers. If the theory that alcohol safety school is appropriate for social drinkers only is correct, then only a third or at most a half of this population should have gone to school, whereas in fact 71 percent of the total, and 46 percent of those identified as problem drinkers, actually were sent to school. Roughly half of the referrals were, in other words, inappropriate, and the alcohol safety schools which were the countermeasure's main component offered courses not intended for about a third of the persons present. Duration again becomes important. With schools using only hours to deal with problem drinkers whose cure will definitely take months or years, it would have been extraordinary if they had succeeded.

It is clear that the ideal of getting the right person referred to the right treatment for the right length of time was not met and could not be met in a majority of ASAP cases. This makes it impossible yet to evaluate rehabilitation as a judicial alternative for drinking drivers and points out the importance of NHTSA's repeated emphasis that the present state of this countermeasure is only a preliminary step toward a much more sophisticated program.

2. ASAP Rehabilitation Measures of Effectiveness

The original measures for the effectiveness of education and rehabilitation were directly related to highway safety records: declines in subsequent arrests and crashes. Though obviously essential, these two measures proved inadequate. Since only 11 percent of the problem drinkers and 6 percent of the nonproblem drinkers were arrested within a year of the index arrest, their numbers are too few to measure sensitively the effect of rehabilitation or education. Further, both measures depend on the level and nature of the enforcement effort and on the accuracy of records, all of which are unreliable. NHTSA concluded that these two measures will prove adequate only if random assignment and control groups involve large numbers of cases in a careful experimental design, with variables designated precisely enough to measure effects specific to the countermeasure. By the end of their 3 years, some ASAPs had reached a condition where their record systems and caseflow were adequate to implement such an experimental design.

A second early set of effectiveness measures, mainly for the alcohol safety schools, emphasized increased knowledge and changes in attitude toward drinking driving. Almost all schools were effective by these measures, but they received no credit for success because they did not achieve equal results in reducing arrests and crashes. They could demonstrate no large effect of changes in knowledge and attitude on changes in behavior, and highway safety managers gave much more weight to the bottom-line crash and arrest statistics.

Later in the development of ASAP, a third set of "intermediate measures of effectiveness" assumed increasing importance. The intermediate measures covered such matters as decreases in the amount or frequency of drinking, a decline in the number and intensity of practical and psychological problems associated with alcohol, and increases in family and economic stability.

NHTSA eventually set up a small special evaluation of selected short-term rehabilitation patterns with a "Life Activities Inventory" emphasizing intermediate measures, whose results are not yet available. Stanford Research Institute evaluated rehabilitation programs (funded by NIAAA) by intermediate measures and found improvement in 90 percent of the cases.

ASAP opinion about evaluation measures thus shifted considerably and importantly during the course of operations. The movement created the first common ground between highway safety evaluation and treatment evaluation. NHTSA's tentative acceptance of intermediate measures showed highway safety's increasing sophistication with the nature of the drinking-driving population. It represented a greater realism about "cure" and the recognition that problem drinking takes more than one brief effort to eliminate. It acknowledged the similarity between some of the goals of highway safety and alcoholism treatment, in that area where interaction may eventually have the most positive results.

The shift was also important in practical terms at the local level. Using only bottom-line highway safety measures, NHTSA found itself in the unhappy position of telling its own ASAPs that they were failing, of using statistics to deny the surface validity of educational or rehabilitation programs, and of contradicting the subjective reports of those running the programs. While the statistics are more valid (probably) than the subjective reports, use of them by NHTSA endangered real testing of program validity by undermining the morale of the program personnel. Accepting intermediate measures was a good compromise. It recognized both the strength of local judgments and the need for a longer and more comprehensive evaluation.

Recidivists made the problem of measures of effectiveness very clear. What does one do about people who have been through an ASAP system and are then arrested again? Highway safety evaluation automatically marks a recidivist as a failure, but both judges and treatment personnel expect a certain amount of recidivism to be inevitable. Most treatment personnel accept reductions in the amount of drinking, or steady, but not consistent, improvement as signs of success, and they expect the stress that accompanies treatment to result in some cases of increased drinking-driving. *They regret recidivism*, but they see it more as a warning that they are dealing with a serious problem drinker rather than that they have failed. They also recognize a pattern of short-term improvement followed (after months of sobriety) by a sudden relapse. Their goals, in other words, are long term, whereas the original highway safety evaluation plans emphasized only short-term behavior (6 months). Recidivism thus became an area where compromise was necessary as ASAPs grew more experienced. On the one hand, the highway safety evaluation changed to include long-term and intermediate measures. On the other hand, treatment personnel began to set abstinence from drinking-driving itself as one legitimate behavioral goal for their clients, and they began to change their programs to suit the needs of persistent drinkers. In the center of the problem—where addicts become repeat offenders in the eyes of the law—were the courts, who began to develop new attitudes and procedures specially developed for recidivists. Toward the end of their funding, various ASAPs were thus focusing upon the drivers who caused the worst safety and rehabilitation problems, and it was negotiation over evaluation measures which had brought about the improvement in the system. The problem of recidivism should become an important area for program development in the future.

C. ASAP Education and Rehabilitation Findings

The amount of activity generated by ASAP education and rehabilitation efforts was considerable. Some half-million people attended some kind of education or rehabilitation program as a result of ASAP. Few would have attended without ASAP. If it is true that between ten and twenty

million citizens are in trouble with alcohol, then ASAP is clearly a major case-finding mechanism, particularly as its accuracy and efficiency improves and as it expands for longer periods into more than 35 sites. Since the country lacks any other major case-finding mechanism (with the possible exception of occupational programs), ASAP has great significance for any community's attitude toward alcoholism. This was demonstrated in all ASAP communities, which without exception saw their treatment resources increase and improve as a result of ASAP.

The level and kind of activity in the courts changed equally at most ASAP sites as they became involved in, first, the identification and referral of problem drinking drivers, then later in designing effective court responses to drop-outs and recidivists. In many misdemeanor courts, the prosecutors, judges, pre-sentence and probation personnel, and clerical staff responded to the criminal justice implications of abusive drinking in ways never previously thought possible. The significance of their involvement is clarified by two statistics. There are more than a million arrests for drinking-driving each year; that is, they constitute about 25 percent of all serious cases handled by the lower courts, and in some courts they are a majority of all cases. Further, there are some 4.5 million nontraffic cases of all kinds in the courts each year, and of this number, somewhere between 50 and 80 percent in almost all categories (including felonies) involve the use of alcohol. Providing the courts with a mechanism for responding to the alcohol-relatedness of anti-social behavior, therefore, has large implications for their handling of many criminal cases, and especially for the function of the lower courts.

ASAP had two preliminary goals for its rehabilitation and education countermeasure: to provide a referral mechanism between the courts and the community treatment agencies capable of providing longer term treatment; and to support a program of short-term, group-oriented education and rehabilitation modalities to aid individuals in transition between the courts and community resources. It clearly achieved these two preliminary goals, and the consequences were a significant reorientation of both courts and treatment resources as they responded to newly identified needs of their increased and new populations.

There remains the problem of effectiveness, for the principal objective of the education and rehabilitation countermeasure was to modify the behavior of the referred population so as to reduce the probability of subsequent DWI behavior. Did ASAP achieve this goal? Is ASAP-supported rehabilitation and education an effective highway safety program?

There are two important ways to answer this question. First is presentation of the results of ASAP evaluations, which give one concrete report as to whether the Program as it then existed was successful. Second is the general issue of the effectiveness of education and rehabilitation raised by those results. There is also a note of warning about the nature of published ASAP evaluations. Both the ASAPs and their evaluation programs were so changeable that results were outdated before they were published. The reports by individual ASAPs tended to be positive about the results of rehabilitation, while later aggregate analyses tend to be less so. The reason for the difference was the improvement in evaluation methodology and data, and all early ASAP evaluations—whether by ASAP, NHTSA, or outside critics—should be treated with caution.

Current analyses of ASAP data indicate predictably mixed results. The alcohol safety schools, for instance, definitely improved knowledge and changed attitudes, and if these had been their only goals, they could be evaluated as a remarkable success. But their most important objective was to "modify behavior," and records of subsequent arrests and accidents show that in this a majority did not succeed. NHTSA currently reports: "Thus, very little objective data is available at this time to support the contention that alcohol safety schools have a positive effect in reducing subsequent

arrest and/or crash involvement.” Where intermediate measures are used, the picture is different again—the schools seem to be having positive effects, greater than those on highway safety behavior, less than those on knowledge and attitudes. There were also indications that didactic schools using only lectures tend to worsen the subsequent driving records of problem drinkers, whereas all types of school are equally beneficial for social drinkers.

Rehabilitation modalities other than alcohol safety schools were not evaluated thoroughly, partly because there were not enough referrals, partly because evaluation was introduced late and is not yet complete. There is thus no final word available on the effectiveness of rehabilitation. A handful of completed studies indicate that group therapies changed knowledge and attitudes successfully, were better than the schools at changing the intermediate measures, but had no convincing effects in reducing subsequent arrests and crashes. No evidence has so far demonstrated the relative effectiveness of one form of rehabilitation over another. NHTSA concludes currently that there is “no firm evidence to indicate that rehabilitation was effective in terms of these highway safety-related criteria.” Intermediate criteria produce a more positive picture. Evaluation by Stanford Research Institute of ten treatment programs for drinking drivers sponsored at ASAP sites by NIAAA showed that their rehabilitation effort “does effect significant positive change on over 90 percent of these clients as measured in a variety of ways six months after entry into treatment.” SRI continues: “Although the need for a number of improvements are cited in this report, we can state conclusively that NIAAA’s Problem Drinking-Driver Program is working productively, and we recommend that every effort be made to continue and expand this program.”

To sum up, ASAP produced no evidence to show overall that either education or rehabilitation favorably affected the subsequent driving behavior of persons referred, but there is much evidence by other measures of effectiveness to refute statements to the effect that ASAP education and rehabilitation do not work. Neither the ASAP rehabilitation and education countermeasure, nor its evaluation plans and results, lasted long enough to enable us to make conclusive generalizations about rehabilitation or education. ASAP education and rehabilitation efforts overall were not good enough and did not last long enough to test large hypotheses. The early evaluations lacked the control groups, sample size, criteria of effectiveness, and duration which would enable evaluators to come to definitive conclusions. It seems so far that ASAP was successful in changing knowledge and attitudes, that it was also successful by intermediate measures, and that its success in changing short-term driving behavior is dubious or unpredictable.

What other information can ASAP provide about education and rehabilitation? It has raised, for instance, four very important hypotheses about the objectives of alcohol safety schools:

- That they do increase knowledge levels
- That almost any kind of school works well with social drinkers
- That problem drinkers should attend only certain kinds of school, if any
- That schools will not have dramatic effects on driving behavior.

All four probabilities are very significant for any community planning to establish an alcohol safety school.

ASAP has produced equally important information about the nature and structure of alcohol safety schools. Most ASAP schools originally used packaged curricula, but experience and

evaluation quickly brought about diversification. The most dramatic instance occurred within Phoenix, which abandoned its pioneering curriculum when it proved ineffective with a much enlarged population, just as other ASAPs were cheerfully adopting the former "DWI-Phoenix" curriculum for their own communities. Like many ASAPs, Phoenix began to develop different kinds of educational/rehabilitation experiences for different kinds of drinkers. Several ASAPs retained brief, lecture-oriented schools for social drinkers under the name "Level One" schools, while "Level Two" and "Level Three" schools took early problem drinkers and alcoholics into group therapy sessions. In fact, the diversity within ASAPs by the end of 3 years was veiled by the general term "alcohol safety school," and it has made aggregate evaluations about the education countermeasure extremely difficult.

For example, in 1974, one study examined 44 schools and described them as existing along a spectrum, in "clusters," according to the following criteria: proportion of time spent lecturing; amount of time spent on leader-client verbal interaction; amount of time spent on client-client verbal interaction; total program exposure time; and average session size. The study recorded three major types of school, ranging from the most lecture-oriented to the least lecture-oriented, and its analysis of the relationship between drinker types and school types showed that all types of school had apparently equal effects on social drinkers' later driving records, whereas purely lecture-oriented schools affected problem drinkers' records adversely. The lesson from both local experience and overall evaluation seems to be that it is undesirable to expose all drinkers to the same educational experience.

ASAP also showed that there is no agreement as to what is the real purpose of alcohol safety schools. Some schools stay strictly to imparting factual information about highway safety, making no pretense at therapy and not attempting any form of influence on future behavior other than education. Most schools encourage some mild self-analysis on the part of the drinking drivers, and some build on this aspect by offering information as to where clients can go for further help. Others try strongly to motivate drinkers to seek further treatment voluntarily. Many act as intake and referral units for rehabilitation agencies, not only accepting self-referrals but also performing both diagnostic and management functions for compulsory referrals. Many offer group therapy and a little individual counseling, orienting themselves to therapeutic purposes and considering their role to be sympathetic to the "client," while others regard themselves as an arm of the court and provide the "offenders" with minimal support. Some schools are the only referral agency in their community for this particular population, and they therefore scramble to do whatever they can, while other schools exist within a network of community agencies and therefore define their own purposes precisely. In sum, most ASAPs recommend that a community design a school suited to its own needs, and that the school should start operation only after planning has defined carefully both its objectives, its proper population, and its most relevant functions.

ASAP started with a basic concept: education is probably useful in deterring drinking-driving. Both the concept and the schools then existent have now been shown to be fairly primitive, and ASAP deserves most of the credit for improving the schools. The degree of the progress made during the last 5 years would not have occurred without a large, centralized experiment and the funds and expertise for evaluation. ASAP has created a reservoir of knowledge and expertise that did not exist before and can give clear advice on what is appropriate and inappropriate. More knowledge is needed, but ASAP has also created the methods for acquiring that knowledge which can be applied systematically in the future at both the national and the local levels.

Concerning rehabilitation (as distinct from education), ASAP publications tell very little but ASAP experience has been invaluable. It is clear that the system is dealing with a whole spectrum of

drinking problems, personalities, and life states, rather than with a single group of people called simply "problem drinking drivers." It is clear that education is not enough as an added sanction for many of these people and may be irrelevant or counterproductive for some of them. There is a core of drinkers for whom one time through the system is not enough and to whom the system must specially respond. "Cure" often takes longer than the time legally available for its accomplishment, and the duration of probation may need to be linked to the duration of rehabilitation. On the other hand, ASAP rehabilitation efforts have improved substantial numbers of people, some of whom would not otherwise have improved. None of these concepts is a major theoretical advance, but in view of the innovativeness of ASAP rehabilitation, the difficulty of getting local systems operational, and the unrealistic expectations with which the countermeasure was launched, they are as great a gain as could be expected at this time.

This leads to discussion of ASAP's major contribution to date in this countermeasure; knowledge of court coercion into rehabilitation as a treatment modality in and for itself. This is the point where distinctions between actions by the courts and by the treatment agencies begin to blur and conjoin in ways which had never been explored before ASAP. When a court seeks to deter drinking drivers from becoming recidivists, it is trying to exert behavioral control from a distance and for a duration. It normally uses conditions of probation, which are simply certain behaviors which an offender "agrees" to as part of his sentence. The ASAP concept makes attendance at an education or rehabilitation program an added behavioral condition. (Since neither treatment nor cure can be mandated, the court can only require attendance.) This addition of treatment agencies to the court's arsenal had unexpected ramifications.

First, court authority proved very effective in assuring attendance at rehabilitation programs. Although drop rates were high enough to require willingness by the agency to report back to the courts and willingness by the courts to revoke probation, overall drop rates were not high and seemed to decrease as the system grew more efficient. For example, in 1973 the average drop rates nationwide were as follows: alcohol safety school, 11 percent; group therapy, 11 percent; in-patient therapy, 8 percent; and Alcoholics Anonymous, 8 percent. Only the two most prolonged and stressful modalities, working on the most difficult population, had high drop rates: chemotherapy was 31 percent, and individual therapy, 22 percent. Most significant is the apparent fact that all these drop rates were lower than those for persons attending rehabilitation voluntarily. This difference was very important to treatment agencies, because one of the main reasons for the failure of any alcoholism program to "cure" drinkers is that they cease to attend when the going gets rough, as sooner or later it must. Court coercion lessened this major problem.

Court authority also proved very effective in overcoming denial, one of the major reasons why people never enter treatment. Someone constantly reassuring himself that he does not have a drinking problem will not enter rehabilitation except under coercion. The court's decision forced attendance, which gave the treatment agency a chance to work on the denial syndrome, aided by the fact that a drinking-driving charge is irrefutable evidence that alcohol is causing the person trouble.

The consequences among agencies treating ASAP referrals were little short of revolutionary. Voluntariness had normally been regarded as essential to rehabilitation success, but the agencies now found themselves treating successfully people who had been forced to attend. Agencies which had begun by refusing to accept coerced referrals began not only to accept them but to cooperate in ensuring that the coercion continued for the legal and/or necessary period. In many ASAP communities, they now use the courts as their agents to bring about treatment, a reversal of previous attitudes great enough to cause anxiety as to whether ASAP is recriminalizing alcoholism through

drinking-driving cases. Developments within Alcoholics Anonymous were especially interesting. AA investigated ASAP with care, and in 1974 published guidelines for local chapters taking ASAP referrals. The guidelines accept the courts as a legitimate place for AA to find members, and they recognize court-coercion as providing a time period within which AA will have a chance to turn the attendee into a volunteer. Since AA is the largest and most successful treatment organization in the country, this was an important policy development.

When rehabilitation agencies accept the courts as a mechanism for case-finding and for control during treatment, they have launched a significant new program. The courts each year see perhaps 10 percent of the nation's problem drinkers, and they see them often earlier in their drinking careers than do either the treatment agencies or AA. In drinking driver cases, they see a wide spectrum of social and economic classes. Thus, when treatment agencies accept these coerced referrals, they change dramatically the nature of their patient population. Further, if they can successfully use court coercion as a weapon for overcoming denial and failure to attend, they will have developed a wholly new treatment modality, wherein the court and the rehabilitation agency act together to lessen recidivism, each in different ways.

In the field of alcoholism treatment, the growth of ASAP is thus as significant as that of occupational programs, which are similarly coercive and reach similar populations. Treatment shifts from late-stage alcoholism and voluntary patients towards preventive efforts aimed at earlier stages of problem drinking—long the announced goal of most alcoholism programs funded by Congress. The ethical and practical ramifications of this shift deserve consideration before court-coercion becomes so popular that (as has happened in some ASAPs) a community's treatment agencies find that a majority of their referrals are coerced.

D. Conclusions

1. Alcohol Safety Schools

Does the ASAP experience suggest that the current mushrooming of alcohol safety schools should be encouraged or discouraged? Those who are skeptical about ASAP's results with the schools which handled 71 percent of their population make the following arguments against expansion. The schools are not demonstrably more effective than anything else in reducing subsequent arrests and crashes. They are often of poor educational quality. By offering courts and defendants an easy way out and creating the illusion that an appropriate sanction has been imposed, they prevent application of really effective sanctions, and, when coupled with plea bargaining and sentence bargaining, they make the objectives of legislation and adjudication meaningless. Proponents of the schools argue that the schools are achieving their proper objective—creating changes in knowledge and attitude—and that since an informed citizenry is the basis of our criminal justice system and public safety laws, removal of the education would not be a step forward. The arrested drivers are the most appropriate target group for such education, and regardless of whether or not they immediately change their driving behavior, the education will have long-term safety dividends by assisting the "maturing out" process by which many people (especially young men) solve their drinking problems.

NHTSA itself takes the middle ground by recommending that the schools expand only if their purposes and attendees are carefully controlled to avoid waste and harm. NHTSA does not support legislation which makes attendance at schools an alternative to license suspension or revocation, since they are very clearly not appropriate for all drinking drivers. At the local level, ASAP personnel see the schools as useful for other than educational purposes: as intake and referral units,

or as additional (rather than substitute) sanctions, or as a structure within which short-term rehabilitation can be undertaken. Most ASAPs want greater diversification within the schools, so that there are different types of schools for different kinds of drinkers. Most ASAPs want further development of the psychological and educational theory behind the schools and more experimentation with different curricula. All ASAPs recommend careful program development before starting a school, and support from thorough information systems to avoid inappropriate referrals. Most ASAPs support efforts at scientific evaluation for purposes of feedback, and their best advice seems to be to proceed with caution and with limited, precise objectives.

2. Effectiveness Evaluation

Prior to ASAP, the art of evaluating court-based referral programs for alcoholism rehabilitation did not exist. NHTSA's knowledge of what had happened with evaluation of Driver Improvement Courses led ASAP into elaborate and imaginative evaluation efforts; they did not want to encourage wasteful growth of alcohol safety schools or of ineffectual rehabilitation efforts. Their current evaluation programs and criteria have reached a high level of sophistication, and ASAP publications in this area should be studied.

In neither court-sanctioning procedures nor alcoholism treatment does anyone know what precisely works with what kinds of people. No one can yet predict whether a particular punitive sanction will modify someone's behavior, nor whether a mode of alcoholism rehabilitation will be successful. It would have been unrealistic to expect ASAP to answer such questions, though the Program has now organized the system to the point where answers may be possible in the next few years. ASAP made no attempt to evaluate the effectiveness of rehabilitation versus traditional punitive sanctions.

3. Court-Based Coercion

ASAP has not yet shown whether court-based coercion into education and rehabilitation, coupled with punitive sanctions, is more or less effective than other modes of reducing alcohol-related accidents and driving violations. However, it has shown that court coercion is a viable rehabilitation modality capable of responding positively to a wide spectrum of problem drinkers and solving some major rehabilitation dilemmas.

Court-based coercion has also emerged as a management system very interesting to local government. The systemwide approach to drinking drivers has proven effective (and cost-effective) enough in terms of community resources for many elected officials in ASAP sites to continue interagency planning and delivery of services for the population identified by a DWI arrest, using local funds.

VII. ASAP PUBLIC INFORMATION AND EDUCATION COUNTERMEASURES

A. Background

Programs aimed at drinking-drivers normally include large publicity campaigns which create disapproval of drinking-driving in the general public mind. The Alcohol Safety Action Program was no exception, though its campaign had new elements and approaches. The rationale for the ASAP PI&E countermeasure was similar to that of previous programs: "Effective alcohol countermeasure programs can only be developed and maintained where there is a community awareness of the need to reduce the incidence of drunk driving, where there is informed, cooperative action among all responsible officials and professionals; and where there is public support for control and treatment measures."

Although the ASAP message differed from that delivered in previous campaigns, it encountered the same basic dilemmas:

- *Attitudes and behavior.* The central problem for drinking-driving campaigns is indicated by a 1973 national survey, in which 86 percent of the respondents rated drinking-driving as "a very serious problem" in the United States and 78 percent felt that police and courts should be "tougher than they are." Is this huge attitudinal majority not enough? Does the majority include the minority of the driving population who regularly engage in drinking-driving? Do the people with these beliefs still engage in drinking-driving themselves? In other words, public attitudes already disapprove of drinking-driving, but the amount of drinking-driving does not decrease. Is it worthwhile trying further to change attitudes? among which special target groups?
- *Knowledge and behavior.* Lack of knowledge about the risks involved in drinking-driving, the nature of alcohol impairment, amounts of alcohol consumed, enforcement levels, problem drinking, etc., is extensive. Even the well-educated, even the main agents of the criminal justice system, tend to be ill-informed. Increased knowledge is desirable, and changes in knowledge level among both public and professionals are measurable by tests and interviews. But does increased knowledge affect accident statistics? And assuming knowledge does change behavior, what kind of knowledge? which items of information? The same question has plagued driver education programs for many years, and the answer remains unclear.
- *Audience and campaign.* Since only selected portions of the general driving public can do anything about reducing abusive drinking-driving, what is the best way to reach those persons: mass media campaigns? special target-group campaigns? What should be the content of each campaign: general attitudinal education? specific factual information? What is the objective of the campaign: to stop the audience from abusive drinking-driving? to have them stop others? to support community funds aimed at stopping drinking-driving?
- *Sponsor and campaign.* Although the expenditure of public funds for a public cause such as highway safety is undeniably legitimate, the question remains as to whether private agencies or semi-public organizations would be more appropriate and effective as sponsors. If the government did not bear the costs, would the message nonetheless reach

the public through other channels? Does a special campaign have measurable effects attributable to that campaign alone?

Most of these questions remained unasked until fairly recently. The summary of research presented in the 1968 Alcohol and Highway Safety Report to the Congress showed that PI&E campaigns should take into account the disproportionate involvement of problem drinkers in alcohol-related crashes. Clearly, campaigns aimed at all drinking drivers, saying "If you drink, don't drive," were no longer appropriate.

NHTSA conducted a national survey upon the initiation of the National Alcohol Countermeasure Program, before ASAPs were established. This research showed that 80 percent of Americans do drink and drive, yet are uninformed about the role of excessive drinking in crashes. The ASAPs, therefore, were encouraged to target their communications programs according to these findings, that is, to break new ground in public education on alcohol and highway safety.

B. The ASAP Public Information and Education Approach

Each ASAP allocated some 8.5 percent (or less) of its funds to public information and education. This was the smallest proportion allocated to any countermeasure, but it was supplemented by a large national-level campaign involving both survey research and advertising. National and local campaigns were coordinated with some care, but no effort was made to stifle local efforts in favor of the national campaign. Sites were required to submit plans, and general themes for all campaigns were encouraged by NHTSA.

The formal objectives of the ASAP campaign were more carefully specified than usual. It differed from previous efforts in certain specific ways: it concentrated on problem drinkers rather than all drinkers; it emphasized education rather than simple exhortation; and it did not mainly emphasize the "crackdown" approach aimed at deterrence through fear of arrest. In sum, it represented a much more precise approach than did the previous national campaigns. The stated objectives of the overall campaign were as follows:

- Make the problem of alcohol-related crashes a higher priority among community concerns.
- Make key officials and professional groups (police, judiciary, etc.) aware that two-thirds of the drunk driving fatalities involve problem drinkers, rather than social drinkers.
- Create support for the hypothesis that this relatively small segment of the driving population which abuses alcohol can be effectively controlled.
- Inform key officials, professionals, and the public about modern countermeasure methods.

Two of these four objectives were questioned during the course of the campaigns, when some experts claimed that the over-involvement of problem drinkers was not scientifically certain, that methods of control had not been fully developed, and that the program tended to make alcoholics into villains. (Criticisms of the whole ASAP concept, such as these, tended to focus on the PI&E campaign.) The four objectives notably emphasize educating "key officials and professionals" rather than just the general public. This was an innovation in alcohol safety campaigns, but in practice the emphasis tended to revert to the standard public education audience. A notable omission from the

target groups was the problem drinking-drivers themselves, a priority group for the ASAP enforcement and adjudication countermeasures. The 1972 ASAP Evaluation Report comments: "Experience suggests that mass media alone is [sic] not likely to alter the drinking behavior of alcohol-dependent people." The ASAP approach was "to build a system around the problem drinker involving community officials, health care professionals, and family and friends to enable him to identify and deal with his drinking problem and prevent him from driving until his drinking pattern might be modified." This choice caused concern in some local jurisdictions, who worried that the campaigns were making the problem drinking driver into the old "menace on our highways" and "killer drunk" of previous years, and who felt that the NIAAA campaign running parallel to ASAP at the time more fully accepted the responsibility of reaching problem drinkers themselves.

To achieve their objectives NHTSA and the ASAPs used a variety of methods:

- *National-level campaigns.* NHTSA offered each ASAP participation in special programs at little or no extra cost. A contracted advertising agency (Grey Advertising, Inc.) created TV public service spots which, in revised form, were used by most ASAP sites and remain available for general use. A more temporary event was the "Prestige Personality Tour" in which recognizable personalities, mainly from Hollywood, visited a site for several days as spokespersons for ASAP, generating conventional publicity and amassing an impressive exposure record in all sites. The value of such publicity is neither known nor measurable. In 1974 the U.S. Jaycees announced a national campaign to cooperate with ASAP by disseminating information to their members and the general public. NHTSA also established a "Coordination Center" inside the then Office of Alcohol Countermeasures to permit an exchange of information between the various ASAPs.
- *Public relations campaigns.* All ASAPs conducted the conventional campaigns through press releases and media interviews at the time ASAP was established and whenever any event of local significance occurred. Subjected to many examples of such publicity, the public remained in most sites unresponsive to "ASAP" as an entity, but such activities have their own rationale in the morale and prestige of civic agents connected with the program.
- *Special materials.* Each ASAP generated its own materials for dissemination to the general public. Some dealt with ASAP itself, but more were a legitimate attempt to inform the public about the fact of alcohol-impaired driving. Materials included the following: brochures (almost universal); BAC calculators (produced by more than half the ASAPs); BAC cards; newsletters; press kits; radio tapes, TV film, videotape, and slides. Posters and print ads were prepared by a small group of ASAPs at reasonable cost and with imagination. Various ASAPs used more gimmickry to reach the general public: billboards, bottle caps, bumper stickers, calendars, key chains, litter bags, match books, napkins, police pads, etc. Only two emphasized education rather than short-burst information by producing monographs (Wisconsin and Kansas). Several ASAPs helped make films which have gained national distribution. Some opinion complained that the duplication of original materials in every site was wasteful, and some ASAPs were criticized for inaccuracy in their information. Some materials were suspected of producing results other than intended, as in the case of BAC calculators which the public may have interpreted as meaning they could safely drink more than they usually did before driving. But the distribution in most sites was wide, and some of the materials generated remain available as valuable models for other jurisdictions wishing not to reinvest in design. Of special note are the films available for loan through NHTSA's Technical Services Division.

- *Special target-group campaigns.* Most ASAPs aimed particular educational efforts at various identifiable target groups in the population, sometimes using national-level materials, other times showing considerable imagination in local materials. Some campaigns were aimed at drinking drivers or potential drinking drivers. The most notable example is the success of ASAP sites in having the NHTSA model curriculum for K-12 students (designed by Abt Associates) adopted by some of the schools in the area. Also noteworthy was the development in four sites (Puerto Rico, San Antonio, Los Angeles, and Phoenix) of the first materials designed specially for Spanish-surname populations. Youth campaigns were a national and a local priority. Several sites designed packages for driver licensing authorities to use or distribute. All such campaigns were informative and preventive in nature. All involved cooperation with other community agencies. They were slow to start and often overshadowed by publicity campaigns, but they may have left long-lasting dividends, especially when taken over by another agency on a permanent basis.
- *System design meetings.* Most ASAPs conducted frequent meetings with the decision-making personnel responsible for implementing countermeasures: police, attorneys, judges, public health and medical personnel, community agency staff, city management, etc. These occurred in three ways. First, almost all ASAPs actively used Advisory Boards to provide them with practical assistance in planning and implementation, and in those ASAPs which used Advisory Boards most successfully the process was highly educational to all concerned. Second, most ASAPs sponsored meetings with various subgroups, either in large conferences or in small working sessions, devoted to problem identification and problem solving. Third, as ASAP continued to increase the workload and the coordination between agencies, meetings between personnel from various countermeasure areas occurred more frequently. Meetings were encouraged by the funding for all sites by NHTSA of planning meetings (conducted by Organizational Development Associates) and by three Seminars for Prosecutors, for Judges, and for Pre-sentence/Probation staff (conducted by Indiana University). The inter-agency contacts stimulated by these meetings were among the more productive educational events offered by ASAP, extensively broadening the perspectives and deepening the mutual understanding of the participants. Planning by operational personnel from the whole spectrum of community agents is rare in any circumstances and had never been undertaken by a highway safety agency previously, and though meetings by no means resolved all problems, they represented a good example of the value of ASAP's system approach to community planning.
- *Press education.* Several ASAPs devoted special efforts to educating members of the press for other than public relations reasons, and, although the results were occasionally the opposite of what was expected or desired, these efforts seem to have long-term payoffs. The media can cause more anxiety in the criminal justice system than can any public service agency, and ASAP several times proved invaluable both in increasing the knowledge of the press and in protecting the criminal justice system from unfair attack when something "went wrong." (For example, ASAP could respond impartially when a legislator attacked plea bargaining or a person attending DWI School was involved in an alcohol-related accident.)

To provide guidelines for the various ASAPs, NHTSA used the internationally recognized *Road Safety Campaigns: Design and Evaluation*, published by the Organization for Economic Cooperation and Development in 1971. NHTSA also held several workshops and national meetings on both

subject matter and methodology. Each ASAP was required to construct a detailed plan for the countermeasure area, to describe "the target behavior to be influenced with specific audiences; what kinds of appeals would be used to motivate these target audiences; in what media these messages would be placed; and how the communications effort would be evaluated."

Evaluation of the general information campaigns generally consists of a simple enumeration of the number of TV spots, radio notices, newspaper stories, and personal appearances. These of course are only proximate measures, though important in the light of competition among public service programs for attention from the media. More significant evaluation came from two of the most valuable PI&E activities: household surveys and roadside surveys. The development of these surveys, their methodology, and their results are among the most useful of ASAP products. They provide baseline information about: the amount of drinking and driving in a community, correlated with BAC in a complete roadside (not roadblock) survey; public knowledge and attitudes about drinking-driving; and changes in knowledge, attitudes, and behavior about drinking-driving over a period of time. The results of these surveys and the instrumentation and methodology for conducting them exist as a permanent reservoir of new information.

C. ASAP Public Information and Education Findings

It proved impossible to evaluate the effectiveness or cost-effectiveness of each PI&E activity individually. As the 1975 NHTSA evaluation reports, "The little understood tools of the evaluator were viewed with suspicion as an infringement upon creative activity, so that campaigns built around survey research data were the exception, not the rule, and few PI&E specialists sought feedback about their program's impact." Nonetheless, NHTSA tried persistently to accomplish such evaluation and succeeded in producing some validated results. In addition, general opinions emerged with a consensus based on experience.

1. Level of Activity

The number of PI&E events was extremely high in most ASAPs, and several began to reach saturation point. Survey results showed that majorities of the ASAP population were aware of some special effort being conducted in their area about drinking-drivers, and knowledge levels showed a steady increase (though not as great an increase as had been hoped).

2. Success of Campaigns

In 1972, NHTSA concluded on the basis of surveys that the media campaigns were having "a relatively small impact," which duplicates the experience of previous highway safety campaigns. Some sites reported significant changes in knowledge and attitudes in specific areas, and a handful detected changes in behavior, but no site could attribute observed changes to the media campaigns or be sure of their permanence.

Several sites experimented with carefully measured campaigns aimed at identifiable subgroups of the population (e.g., young male beer drinkers). These special target-group campaigns produced significant changes in knowledge and attitudes and, when coupled with survey information to identify high-risk groups, seem more cost-effective than media campaigns.

The persons most affected by education were those whose jobs involve the handling of drinking-driver cases: prosecutors, judges, pre-sentence/probation staff, health care professionals, and police. All ASAPs made substantial gains in these areas, though few attempted to measure the

changes in these groups. General opinion held that only the prolonged operation of a special project with trained management staff would educate these professionals, who are largely impervious to "public service" messages. At the same time, education aimed at them may have the most permanent influence in the long run, and they are certainly the people most consistently influential in system attitudes toward drinking-driving.

No ASAP concentrated primarily on a PI&E campaign threatening a high probability of arrest. Although analysis of the British Road Safety Act of 1967 suggested that such a campaign, coupled with a genuinely high level of enforcement, might be productive in reducing drinking-driving, no ASAP tested this hypothesis. Interestingly, surveys showed that the public nonetheless perceived the risk of arrest to be much, much higher than it in fact was.

No evaluation of the most and least desirable media was possible, and ASAP recommends no more than that the media be chosen on the basis of knowledge concerning the target group at which the message is aimed.

3. Use of Surveys

Most ASAPs concluded that the various surveys were both practical and useful, despite difficulties with cost and conduct. The roadside surveys provide the only measure of what is happening to the amount of drinking-driving in a community, and despite technical and legal difficulties, most ASAPs recommend their use. Their experiences also contributed much to our knowledge of how to conduct and how not to conduct roadside surveys. The household and telephone surveys tell a program more about public knowledge and attitudes than any other method, and feedback enables the program to tailor its efforts to the population and the knowledge which are more relevant. Both kinds of survey enable a program to change its PI&E effort after determining what actions are ineffective or merit intensification. The national surveys conducted by NHTSA have created a greater reservoir of knowledge about what the public thinks that has ever before existed.

D. Conclusions

Comparison between sites with PI&E campaigns and sites without PI&E campaigns showed that the campaigns did make a difference. Surveys charted knowledge and attitude changes and attempted to get indirect measures of behavioral change. The 1975 NHTSA Evaluation concludes: "In summary, the impact of the Public Information and Education countermeasure is significant, and most effective in achieving desired changes in the levels of knowledge about alcohol and driving. Household surveys have recorded more positive changes in drinking-driving attitudes for those sites which employed PI&E efforts than for those which did not. The PI&E countermeasures have achieved modest positive results in influencing behavior especially compared with noncampaign sites."

Undertaking the countermeasures without much prior experience, the ASAPs and NHTSA gradually accumulated a fund of experience that is invaluable to new sites, especially in the methodology of setting up a PI&E campaign and measuring its results. The state-of-the-art has now progressed to the point where no jurisdiction should attempt a PI&E campaign without using the recommendations and developed instruments available through NHTSA. So many different materials were created by the various ASAPs that a jurisdiction newly entering the field need spend little effort on new design. Existing materials of all kinds are available through the Coordination Center of the Office of Driver and Pedestrian Programs in NHTSA.

VIII. SUMMARY EVALUATION

A. Evaluation Problems

There are measurable reasons for difficulty in making a final evaluation of the Alcohol Safety Action Program at this stage. The Program was, for instance, too brief. Most ASAPs were funded for 3 or 3.5 years. It took each ASAP a year to get organized to the point of a reasonable level; it took a year to solve the operational problems as they emerged and design a system that would function smoothly; and during their last six months most ASAPs were losing staff and winding down. For most ASAPs there is about a year of information showing the Program operating at some kind of "normal" level. Moreover, within both NHTSA and the local ASAPs, the personnel were inexperienced, and there were many false starts which the data do not reveal. The Program's brevity makes the masses of statistical data and narrative reports less useful than they seem. When the Program started, no one really knew everything that needed to be recorded, and when later discoveries were made, they had a hard choice between changing the evaluation requirements or not imposing new requirements on all sites. It thus became impossible to report information consistently across all sites for all years, and only toward the end of the formal Program was there a reasonable recognition of what information was really necessary and of how it should be analyzed. Experiments suffer when they are artificially truncated.

Further, there were good and bad ASAPs: a few disasters, a few spectacular successes, a broad spectrum among the remainder. Yet in aggregate evaluations they all have to be lumped together as "ASAP," without even the potential for comparing sites to discover what made them good, bad, or middling, but with the clumsy necessity of adding qualifiers to any generalization about the whole Program. And there is the basic difficulty of the drinking-driver population with which ASAP deals. Little is known about what alters drinking habits, or when people change, or how changes are measured. What is known about both the drinking population and the accident population is that change usually requires longer than a year or two, or a single intervention, and yet only in the few continued ASAPs will anything approaching the needed span be possible.

Originally called both a "demonstration" and an "experiment," ASAP turned out to be a learning experience for all concerned at both the national and the local levels. The ASAP systems approach proved to be a live and squirming organism rather than a stable artifact. And only by the end of the federal funding were most ASAPs approaching the point where they were operating well enough for anybody, inside or out, to really pay attention to the details that will eventually measure the concept's operational viability.

B. Achievement of ASAP Objectives

With these strong limitations, the way to measure the achievements and failures of ASAP is according to its original, principal objective: to "demonstrate the feasibility and practicability of a systems approach for dealing with the drinking-driving problem and, further, to demonstrate that that approach can save lives."

1. Reduction in Accidents

ASAP did not achieve the dramatic reduction in fatalities and injuries from alcohol-related highway accidents that had been hoped. Some ASAPs have been associated with reductions, especially in injuries, but other ASAPs showed no reductions at all.

2. Improved Traffic Safety System

Credit should go to ASAP for being the first program to have improvement of the whole traffic safety system as its objective, and achieving that objective may be ASAP's clearest success. The traffic safety system envisaged by theorists and legislators proved largely fictional; it existed only on paper, and in many jurisdictions any change represented an improvement. But the innovations developed by a large number of ASAPs brought the nominal traffic safety system into real life, and the ASAPs improved so many countermeasure areas that it is safe to say the change would not have occurred without ASAP. The major improvements in each countermeasure have been detailed in previous sections of this report, but they are summarized again here.

- **Enforcement.** There is no doubt that many ASAPs improved and increased arrests, to levels beyond expectation. These improvements could probably not have come about without ASAP, for two reasons. First, ASAP operated as a highway safety agent with enough persistence and contractual power to keep police motivated for a much longer period than usual. Though arrest rates began to droop during the last few months, there is evidence that the cause was the imminent departure of ASAP funds, not the concept's weakness. Second, ASAP improved the court practices which seem a determining factor in maintaining high arrest rates. It is surprising not that arrest rates dropped toward the end of an ASAP, but in many sites they stayed high beyond the duration of the ASAP, good evidence that ASAP had clearly changed procedures and attitudes. Much of the increase and improvement in arrests might have been achieved by some other program than ASAP. None would have occurred without some kind of program, and there is good reason to give the ASAP concept direct credit for the most important part of any changes.

On the negative side, no ASAP achieved an arrest rate that was sufficient in itself to lower the incidence of alcohol-related accidents. All ASAPs discovered serious weaknesses in enforcement attitudes and procedures, suggesting that the whole attitude toward the enforcement of drinking-driver laws needs rethinking. All ASAPs remained plagued by conflicts between laws, law enforcement, and court actions of enough magnitude to call in question the value of our entire legal system for dealing with alcohol-related accidents. In sum, ASAP did not improve and increase arrests *enough*—whatever “enough” may be.

ASAP leaves the impression that its ability to affect arrests dramatically came from the extraordinarily low quality and magnitude of enforcement efforts in the average jurisdiction prior to ASAP. ASAP's real success in this area, therefore, may have been to demonstrate both how arrests can be improved and increased and how badly they need to be improved and increased elsewhere.

ASAP also illuminated the obscure details and unexpected dynamics of enforcement operations against drinking drivers, revealing clearly where and why the structure tends to crumble. ASAP demonstrated that better enforcement depends on motivation as much as on equipment, techniques, and a crisis response. ASAP showed that enforcement should not and need not be isolated from the rest of the traffic safety system, that it should be treated with more respect as an intake unit, and that it is deeply affected by changes in other components of the whole system. ASAP showed the police that they can use an ASAP management unit to provide data and specialized knowledge and to act as liaison with the courts. ASAP enforcement units developed theories, tactics, and procedures that remove many weaknesses in the enforcement operation. ASAP showed that it is feasible to increase arrest rates economically to levels which are at least approximately in line with the frequency of drinking-driving offenses, and that (given the right motivation) any efficient police agency can arrest more drinking drivers than at present. ASAP

helped develop court systems able to handle as many drinking drivers as the police can arrest, removing "court attitudes" as a rationalization for police inactivity.

- **Prosecution.** ASAP brought to light for the first time the determining role of prosecution in the court handling of drinking drivers, showing that process to be as selective and discretionary as is the process of arrest. ASAP demonstrated the prosecutor's ability to dominate both enforcement and judicial patterns. ASAP showed that successful referral systems could be based on prosecutorial rather than judicial actions. ASAP brought close attention to the influence of legislation and defense bar attitudes on the pattern followed by prosecution. ASAP was the first nationwide program to bring purposiveness and fairness into plea bargaining at the misdemeanor level. ASAP demonstrated that this process, and especially its use of BAC as a criterion, requires careful examination for both legislative and procedural decisions.

- **Adjudication.** The first major ASAP discovery here was that formal trial issues for drinking-driving are only peripheral to the court processing of drinking-driver cases (though basic to the system's design), because guilt or innocence in the real sense is problematic in only a small number of cases. The second major discovery was that formal conviction may not be a desirable goal for the adjudicative process in the opinion of either the court, the defendant, or highway safety; that the court may easily avoid "conviction" if it regards a legislated penalty as too severe; and that therefore the whole system tends to be much more interested in a "satisfactory outcome" for a case than in a formal determination of guilt or innocence. These discoveries suggest the existence of a real-world traffic safety system very different from the nominal traffic safety system.

ASAP showed that court management, procedures, and administration are more important than evidentiary issues in affecting the number, nature, and outcome of drinking-driver cases. It showed that judges like assistance in the area of sentencing alternatives. And most important, most ASAPs showed that the health/legal approach is a viable operation concept for the lower courts.

In those courts which received ASAP well, the systems approach had major impact and will continue to have ramifications on their other operations. ASAP improved the operations of every court willing to work with it, by providing them either with resources or with principles and methods. ASAP and the lower courts developed a concept of misdemeanor or justice that has major implications for the future of both the courts and the traffic safety system.

On the negative side, some ASAPs failed to win judicial cooperation, and in many ASAPs the cooperation was whimsical. ASAP showed that the entire traffic safety system remains dependent on the individual decisions and attitudes of individual judges. It is clearly very difficult to create a rational and equitable traffic safety system amid the chaos of the lower courts. As long as drinking-driving remains a criminal offense, the highway safety establishment will have to pay much closer attention to those courts and to ally itself with all professional efforts to upgrade them. Those ASAPs which failed to win judicial cooperation need analysis to discover whether they are more typical than the successes, and whether they are so typical as to suggest that a court-based traffic safety system is indeed desirable. ASAP did not prove that the court handling of drinking-driving cases is superior or inferior to decriminalization, administrative adjudication, or action by the driver licensing authority.

ASAP did demonstrate, however, that court control is very effective in winning the cooperation of both the defendants and other components of the system, and that (if properly

used) it may prove to be a whole new and effective treatment modality for problem drinkers. ASAP also demonstrated that judges need not remain as isolated from community agencies as they have traditionally held themselves and that they can be integrated with other agencies for societal control and support, without becoming "social workers."

- **Pre-sentence Investigation.** The art of pre-sentence investigation for large numbers of drinking drivers did not exist before ASAP. A major ASAP contribution was therefore developing a system and techniques for PSI. Equally important was the ASAP development and validation of instruments for separating social drinkers from problem drinkers. Since drinking drivers represent so large a proportion of the courts' misdemeanor caseload, these innovations were major improvements in the nation's lower court system.

The significance of the ASAP pre-sentence concept is threefold. First, it orients the system to respond to the drinking pattern as well as the driving behavior of a defendant, thereby becoming the crucial junction between the legal system and the health system. Second, it differs from the usual PSI given to either felons or misdemeanants, and the "screening" concept which it embodies offers a new model for misdemeanor court action because it is quick and cheap. Third, it serves as a technique for early identification of any defendant in trouble with alcohol and thus could be used for many other cases than drinking-driving.

The development of the ASAP pre-sentence system was not as well controlled as would be desirable. Many sites lagged in both quality and numbers. Few ASAPs were able to give PSI to all drinking drivers arrested, and many ASAPs continued to use outdated or poor quality procedures. Although every PSI was a net gain to the system, the gain was not as great as it might have been in terms of universality and equity.

The ASAP system and instruments for PSI require further refinement. Their purpose needs better definition, and their efficacy as both diagnostic and particularly prognostic tools needs more testing. But ASAP beyond doubt proved the validity and feasibility of the PSI in any system for dealing with drinking drivers and advanced the state-of-the-art to a point of considerable sophistication.

- **Probation.** The act of probation may be discussed under three headings: resources, techniques, and effectiveness. In terms of resources, ASAP made invaluable contributions to every involved court. Many courts possessed no probation capability, and none possessed enough probation resources to handle the volume of cases. ASAP grew popular with the local courts because of their probation efforts, which tended to be continued after the Program had ended. In terms of techniques, ASAP did little formal experimentation but much field development. It discovered enough to indicate that the actions of a probation officer with drinking drivers should be studied in much greater depth and that alternative systems, techniques, and attitudes require formal exploration. As far as effectiveness is concerned, ASAP did not develop far enough to test the effect of probationary control or to compare the effectiveness of various types of probationary control.

As in pre-sentence investigation, ASAP made unprecedented contributions to the probation capability of the misdemeanor courts. Its resources and techniques merit continued development. Its particular strength lies in its ability to control certain aspects of the behavior of both offenders and referral agencies, but it is not yet known whether it leads to a decrease in drinking-driving.

- **Rehabilitation.** The major ASAP achievement in this area was to bring into contact

with education and rehabilitation agencies huge numbers of persons who would not reach their attention at all or else later in their drinking history. ASAP succeeded with large numbers of people in changing their knowledge and attitudes about drinking-driving and about alcohol, and it succeeded in assisting smaller numbers of people toward "cure." ASAP convinced cooperating treatment agencies that referral under court control did not prevent successful treatment, thereby generating a major change in treatment theory. ASAP strongly assisted the efforts of the National Institute on Alcohol Abuse and Alcoholism to implement comprehensive care systems for problem drinkers at the community level. ASAP changed the attitudes toward rehabilitation of many community leaders not otherwise concerned with the subject (e.g., judges and prosecutors). ASAP raised the amount of rehabilitative activity dramatically in every community with which it worked, and in some communities it was the first agency to create a formal rehabilitation system.

ASAP did not invent a treatment mode that would work with all drinking drivers, and it did not prove that rehabilitation is either superior or inferior to traditional criminal justice sanctions in preventing alcohol-related offenses and accidents. Few ASAPs succeeded in creating enough treatment and education modalities to handle all identified problem drinkers with enough care and duration. The appropriateness and accuracy of referrals into the various rehabilitation and education modalities was highly doubtful. The quality of ASAP-sponsored education varied widely from site to site and did not normally contain enough input from educators and psychologists. In sum, ASAP reached the point where it needs to pay much more attention to the amount and quality of its rehabilitative response if it is to avoid becoming another widespread but meaningless societal mechanism.

- **Public Information and Education.** Both NHTSA and ASAP created masses of materials on the subject of alcohol safety and disseminated them very widely. Evaluation showed that mass media campaigns do not seem to reduce drinking-driving, and that education changes knowledge and attitudes much more easily than it changes behavior. Individual ASAP projects suggested that educational efforts aimed at small, specified target groups among both the drinking-driving population and community decision makers may be more productive than mass public education and information campaigns.

- **Project Management.** One of the most unquestionable ASAP successes was to demonstrate the value of its own management functions. The existence of a special alcohol safety unit designed to operate as system "manager" is essential to the functioning of a meaningful traffic safety system. Without the training, coordination, evaluation, liaison, and emphasis provided by ASAP, local traffic safety systems do not function in an integrated and harmonious manner. ASAP also demonstrated that the management unit should not be in a minor position, since its role is important to community government as a whole. The project management should have ready access to local and national management.

C. Conclusion

It is clear that ASAP was an extremely effective method for the Department of Transportation to come to terms with the operations of the whole traffic safety system and that ASAP has led to a breadth and depth of understanding that was not anticipated. Is this enough in itself to have made the Program worthwhile? Much depends on future events at both the federal and the local level. If the ASAP concept "sells" too easily, large amounts of public funds and large numbers of citizens could be subjected to yet another wasteful response to drinking-driving. On the other hand, if ASAP is an improvement on existing systems, then it is unfair to expect communities to arrive at a full understanding of its significance haphazardly. It is not yet clear why some communities are con-

tinuing ASAP (or parts of it) and others have dropped it. Dissemination of ASAP findings has been so far haphazard. A pool of expertise was created among professions and communities where it had never before existed and may now simply evaporate through neglect. All these facts will be worth facing only if the highway safety establishment concludes that ASAP has had enough significance to make continued attention to the whole traffic safety system (especially at the community level) worthwhile. ASAP cannot legitimately sell itself simply as the latest and best technique for quickly reducing alcohol-related accidents.

Equally important is the new relationship established on one side with the traditional criminal justice system and on the other with the alcoholism treatment system. Both these systems have reason to think well of ASAP. It has proven itself as a model for the processing of misdemeanants and for the identification and referral of alcohol-abusers in any court. It has shown itself effective as a method of detecting problem drinkers and bringing them into treatment under favorable circumstances. These are important developments for highway safety theory, expanding horizons in two different and seemingly contradictory directions. They present highway safety experts at both the federal and the local level with the important choice of increasing and deepening cooperation with these other interests or of retreating to a narrower field. It is a choice which the highway safety establishment should not make alone.

Final evaluation of ASAP's achievements and failures is premature not just because all the numbers are not in but because the Program has almost accidentally become one of major potential significance at the community level, a social control program, a social action program. Like all social control programs, the major issues will only come clear over time and they will change through time. Present evaluation of ASAP can reasonably conclude only that the Program has proven itself enough in most areas to make continued work on the ASAP concept almost an obligation.

ASAP READINGS

The best source for both descriptive and statistical information concerning the 35 Alcohol Safety Action Projects is the National Highway Traffic Safety Administration. NHTSA has published three full summaries of ASAP activities. The first is *Alcohol Safety Action Projects: Evaluation of Operations, 1972* (DOT-HS-800-874), in three volumes. Volume I is a summary of all countermeasure areas; Volume II deals with each countermeasure area in seven separate chapters; and Volume III contains formal descriptions of the individual projects. The report is particularly useful for basic descriptions of ASAP history and objectives. Its statistical information is limited to coverage of two operational years for the first 9 ASAPs and of only one year for the second 20 ASAPs. The *Evaluation of Operations, 1973* (DOT-HS-800-973) is briefer than the 1972 report but contains data for two full years of operations. Much more complete and current is the most recent in the series: *Alcohol Safety Action Projects: Evaluation of Operations, 1974* (DOT-HS-801-726). This series covers data through April 1975 and is the first report to reflect changes in NHTSA's procedures as a result of information from the ASAP experience.

Early in the development of ASAP, NHTSA published a series of documents for use in establishing an ASAP, including handbooks for project directors and evaluators. Though most of these documents are now outmoded, *Guidelines for Planning and Developing State and Community Alcohol Safety Programs* (DOT-HS-800-995), published in late 1973, remains a valuable introduction. As NHTSA made progress in the area of evaluation design, both the court countermeasure and the rehabilitation countermeasure benefited. Particularly useful is *One Model for the Evaluation of ASAP Rehabilitation Efforts* (DOT-HS-801-244), by James L. Nichols and Raymond E. Reis, a presentation made originally at the 6th International Conference on Alcohol, Drugs, and Traffic Safety (1974).

The NHTSA materials are, for the most part, based on data supplied by the ASAPs. Each ASAP produced quarterly reports and annual reports for 3 years or more, providing NHTSA with both narrative and statistical information about all countermeasures. The reports were produced by project staff and by the independent evaluators attached to each project, and they are intended mostly for internal consumption. Some of their statistical elements have been thrown in doubt by critiques from outsiders, by changes in evaluation requirements, and by the inability of local jurisdictions to supply all the required information. The reports remain invaluable for learning the problems and solutions encountered by the ASAPs, but only those reports which deal with the reader's specific interest should be sought. Various special analytic studies undertaken by individual ASAPs are listed in the NHTSA annual reports. There is much valuable information in all these reports, but they are difficult to obtain and to digest.

There is a series of important evaluations from independent sources. Earliest was P. Zador, *Statistical Evaluation of the Effectiveness of Alcohol Safety Action Programs* (Insurance Institute for Highway Safety, 1974), which concentrated on the evaluation methodology used in the 1972 NHTSA report and reanalyzed the results to undermine claims that the ASAPs were saving lives. Broader in scope are a series of reports from the University of South Dakota Human Factors Laboratory which (under contract to NHTSA) analyze and evaluate the methodology and accuracy of the individual ASAP reports, countermeasure area by countermeasure area. Especially useful are V.S. Ellingstad, D.L. Struckman, and R.E. Reis, *Interim Assessments of Total Project Impact and Interim Analysis of Drinker Diagnosis, Referral, and Rehabilitation Countermeasures* (DOT-HS-191-3759), published in 1974. In the area of rehabilitation, two reports sponsored by NIAAA are important. Stanford Research Institute evaluated the NIAAA-supported treatment programs at ten

ASAP sites and published their affirmative results in *Development of a Pilot Program for Monitoring and Evaluating the Operation of Ten DOT/NIAAA Joint Alcoholism Programs* (1974). George R. Jacobson produced a "comprehensive review" of diagnostic and assessment techniques, including those used by ASAP, in *Diagnosis and Assessment of Alcohol Abuse and Alcoholism* (DHEW Publication No. ADM 75-228, published 1975).

A useful summary of prior evaluations is coupled with new opinions and recommendations by the California Department of Motor Vehicles, *Final Report to the Legislature of the State of California. SCR-44*, June 1975. The report analyzes both the quality of ASAP evaluations and the evidence for effectiveness of the ASAP concept with a view to making recommendations concerning new legislation. The report is appropriately cautious and readable (though it seems to interpret ASAP as nonpunitive rather than as a health/legal approach), and its skepticism about basing a referral program on the courts is salutary.

There have not yet been as many publications by outside experts concerning ASAP as might be expected, though many writers are responding to the concept at least by inference. The authors with recent publications of most relevance to ASAP include the following: Robert F. Borkenstein, Noel Kaestner, H.L. Ross, Gary J. Scrimgeour, Robert B. Voas, and Richard Zylman. The **Proceedings of the Sixth International Conference on Alcohol, Drugs, and Traffic Safety** (Toronto, 1974) contains papers by NHTSA personnel on ASAP results and the recent views of several of the above authors.

APPENDIX A STATE AND COMMUNITY ALCOHOL COUNTERMEASURE PROGRAMS

REGION I

Connecticut 402/State Funded
The statewide program involves enforcement agencies and the courts. Measures include motor vehicle department records screening, driver retraining based on ASAP, and public information and education.

Maine 402/State Funded
The program involves enforcement agencies and the courts. Measures include a statewide alcohol safety school, presentence investigations, rehabilitation programs, and public information and education.

Massachusetts 402/State Funded
The program involves enforcement agencies and the courts. Measures include special police training and statewide enforcement.

New Hampshire 402/403/State Funded
The statewide program is tied in with the alcohol safety action program and involves enforcement agencies and the courts. Measures include rehabilitation programs and public information and education.

Rhode Island 402/State Funded
The program involves enforcement agencies and the courts. Measures include statewide alcohol safety schools, presentence investigation, rehabilitation programs, and public information and education.

Vermont 402/State Funded
The statewide program involves enforcement agencies and the courts. Measures include rehabilitation programs and public information and education.

REGION II

New Jersey 402/State Funded
The four-county area program involves enforcement agencies and the courts. Measures include program management, coordination and evaluation, DWI schools, rehabilitation programs, and public information and education.

New York 402/State/Local Funded
Measures include a DMV alcohol rehabilitation program and a breathalyzer training program for state and local police.

Puerto Rico 402/State Funded
Measures include DWI schools, a blood sample program for accidents with fatalities, and the purchase of three breath analysis units.

REGION III

Delaware 402/State Funded
Measures include presentence investigation, funding for an assistant state chemist and DMV pre-license investigators, and rehabilitation programs.

District of Columbia 402/State Funded
Measures include funding for an alcohol safety program manager, intensified DWI enforcement, an alcohol problem clinic, and jury demand coordinators.

Pennsylvania Locally Funded
Selected areas of the state have varying degrees of involvement in the program. Enforcement agencies and the courts are deeply involved. Measures include program coordina-

tion, an alcohol safe drilling school, presentence investigation, rehabilitation programs, court referral, and public information and education.

Maryland 402/State Funded
Measures include an MVA alcohol education program, a State Alcohol 402 Project, evaluation support to county and local courts, rehabilitation programs, and public information and education.

Virginia 402/State Funded
This statewide ASAP is based on state legislation. Involved are enforcement agencies and the courts. Measures are

different in varying geographical areas, but the measures include presentence investigation, feasibility studies, rehabilitation programs, and public information and education.

West Virginia

402/State Funded

This program involves enforcement agencies and the courts. Measures include statewide DWI schools, program evaluation, rehabilitation programs, and public information and education.

REGION IV

Alabama

402/State Funded

This statewide program involves enforcement agencies and the courts. Measures include rehabilitation programs and public information and education.

Florida

402/Locally Funded

Local ASAPs are carried out with a local site being selected for a pilot program. Statewide efforts include approximately 40 DWI schools, with a statewide school coordinator, an evaluation of post mortem for statewide BAC data. State Office of Justice is involved.

Georgia

402/State Funded

In at least one city, the program involves enforcement agencies and the courts with measures including a rehabilitation program. Alcohol safety schools exist in six cities. State funds provide for an 18-man special highway patrol task force.

Kentucky

402/Locally Funded

The enforcement agencies and courts of certain geographical areas are involved. Measures include rehabilitation programs and public information and education. A statewide coordinator is provided.

Mississippi

402/Locally Funded

The statewide program includes alcohol safety schools. The enforcement agencies and courts of sixteen cities are participating; measures include presentence investigation and public information and education.

North Carolina

402/Locally Funded

Enforcement agencies and courts of sixteen locations are participating. Measures in these areas include public information and education. Three counties have traffic offenders alcohol education programs; one of these counties also has presentence investigation.

South Carolina

402/Locally Funded

The enforcement agencies and courts in all 40 counties are participating with rehabilitation programs and public information and education.

Tennessee

402/Funded

Three counties are participating to varying degrees with management funding, presentence investigation, rehabilitation programs, and public information and education. All three counties have also involved their enforcement agencies and courts. State efforts include DUI schools with a special prosecutor for DUI in five state locations.

REGION V

Illinois

402/State/Locally Funded

Measures include selective traffic enforcement programs, enforcement training, DUI court referral projects, and public information workshops.

Indiana

402/State/Locally Funded

Measures include rehabilitation programs, purchase of breathalyzer equipment, evaluation of implied consent testing, and support of blood-alcohol concentration testing.

Michigan

402/State Funded

Measures include purchase of breathalyzer simulators, alcohol training for police, and public information and education.

Minnesota

402/State/Locally Funded

Measures include the training of local police and breath-test operators, procurement and/or calibration of breathalyzers

and other alcohol-related testing equipment, funding of a survey to recommend local ASAP sites, establishing the recommended ASAP sites, and public information and education.

Ohio

402/State/Locally Funded

This program involves the court system. Measures include program management and evaluation, post-conviction education, and public information and education.

Wisconsin

402/State/Locally Funded

This area has extensive involvement including program administration, evaluation of implied consent law, rehabilitation and referral programs, conducting blood sample tests on fatally injured persons, replacing breathalyzers, and training personnel to operate the breath-testing equipment.

REGION VI

Arkansas

402/State Funded

This program has statewide participation in increased enforcement and judicial cooperation, including a referral program. The state is divided into 10 area management groups with coordinators. In addition to judicial and enforcement involvement, two cities have rehabilitation programs. A total of 26 counties has increased local enforcement.

Louisiana

402/State Funded

This program involves statewide enforcement agencies and the courts. Measures include a statewide DWI school system and public information and education. Also any city can establish a fine-financed DWI school.

New Mexico

402/State Funded

This program has statewide participation in increased enforcement and an alcohol education program. A major city has a deeper involvement with increased enforcement, presentence investigation and probation programs, DWI

presentence investigation and probation programs, DWI school, and distribution of K-12 alcohol safety material.

Oklahoma

402/State Funded

Statewide participation in this program consists of program management with coordinators. Additional measures include public information and education. Three of the larger cities have greater participation with increased enforcement and judicial involvement. Other measures include presentence investigation, a rehabilitation program, and close cooperation with the state public information and education program.

Texas

402/State Funded

In this program, two of the larger metropolitan areas cooperate with increased enforcement and judicial involvement. In addition, they have presentence investigation, rehabilitation programs, and public information and education. Coordinators in all major cities provide local management.

REGION VII

Iowa

402/State Funded

State participation includes some program evaluation and a statewide system of alcohol safety schools. An ASAP is conducted in one city with increased enforcement and judicial involvement in two other cities. These two cities also have presentence investigation, rehabilitation programs, and public information and education.

Kansas

402/State Funded

A state program manager coordinates the activities of the local and county programs. The enforcement agencies and courts of the areas are involved. Measures include presentence investigation, rehabilitation programs, DUI schools, and public information and education.

Missouri

402/State Funded

One city has an ASAP; another has presentence investigation with referral and rehabilitation programs. This latter city and one county have increased enforcement and judicial involvement with the county also having an evaluation program and public information and education. Referral programs are carried out in three other political subdivisions.

Nebraska

State Funded

Nine sites in the state have project coordinators, rehabilitation programs, DWI schools, increased enforcement and judicial involvement, and presentence investigation. In addition, the state has 12 out reach offices.

REGION VIII

Colorado

402/State Funded

In this state, six cities and a four-county area include in the program their law enforcement agencies and courts. Measures include program management, presentence investigation, rehabilitation programs, and public information and education.

Montana

402/State Funded

This statewide program includes enforcement agencies and public information and education. Three cities have presentence investigation and referral programs; two of these cities also have DWI schools.

North Dakota

402/Locally Funded

Statewide efforts include stricter enforcement of the pre-arrest portable breath test law. One city includes their enforcement agencies and courts in the program. This city's measures include presentence investigation and public information and education. Another city also has stricter enforcement, presentence investigation, and referral programs.

South Dakota

402/State Funded

This state has a statewide tie in with the 402-funded Alcohol Safety Action Program.

Utah 402/State Funded
This program involves enforcement agencies and the courts. Measures include presentence investigation, rehabilitation programs, and DWI schools.

Wyoming 402/State Funded
This program has statewide public information and education with two cities utilizing preservice investigation and referral programs.

REGION IX

Information unavailable for this region.

REGION X

Alaska 402/State Funded
Workshops for local officers are now being conducted in alcohol safety.

Idaho 402/State Funded
Efforts include a statewide tie in with 402-funded ASAP. Other measures include three alcohol safety coordinators, court alcohol referral centers, and a 2-percent surcharge on all liquor for financing alcohol safety programs.

Oregon 402/State Funded
This program has varying degrees of involvement by cities and counties. Eight counties and three cities have in-

creased enforcement; one county and three cities involve their court systems; one county/city metropolitan area has presentence investigation and a rehabilitation program; one other city has a rehabilitation program; and one county and three cities have public information and education.

Washington 402/State Funded
Three counties have mini-ASAPs, involving enforcement agencies and the courts. Other measures include management systems and public information and education.

APPENDIX B

ACCIDENT REDUCTIONS ATTRIBUTABLE TO ASAP

I. EVALUATION METHODOLOGY

Problems associated with the ultimate Alcohol Safety Action Project (ASAP) impact can be divided into three general categories: (1) validity of criterion measures to be used to measure the impact, (2) appropriate evaluation design selected, and (3) appropriateness of the statistical tests used for hypothesis testing. In most cases, item 2 specifies the statistical tests in item 3.

The specifications of these three elements, if appropriately selected and available, can provide the evaluator the capability to infer statistically that impact was achieved and that no other known external factors accounted for this impact. However, in almost all realistic demonstrations, these specifications are either not or cannot be met for a variety of reasons. The following discussion addresses some of these issues.

A. Criterion Measures

The key problem in the first issue is the isolation of a valid measure of alcohol involvement in crashes. Three measures have generally been available for this purpose: the blood alcohol concentration (BAC) of fatally injured drivers, the judgment of the police officer investigating the accident that the driver was impaired by alcohol, and the time of day at which the crash occurred.

The most convincing evidence that alcohol was related to occurrence of an accident is a high BAC in the driver judged to be responsible for that crash. If such measurements were taken on all drivers involved in crashes, an excellent criterion measure would be available for the evaluation of the ASAP's. Unfortunately, only drivers who are fatally injured are normally measured, so that responsible drivers who are not killed normally escape testing. Moreover, of those drivers fatally injured, usually no more than about half are measured for their BAC's.

The second best measure of alcohol involvement in a crash is the so-called "alcohol-related" crash. The designation "alcohol-related" is usually based on a police officer's judgment resulting from his investigation at the crash scene. The extent of this investigation can vary widely. In some cases, the judgment whether the crash was alcohol related will be bolstered by BAC measurement on the driver judged responsible for the crash. In other cases, the judgment will be based purely on the fact that the police officer on the scene checked "had been drinking" on the accident form. Thus, this measure is subject to considerable variation depending on the depth of the accident investigation conducted.

Lacking direct evidence of alcohol involvement through the BAC's of fatally injured drivers and being unable to use police judgments, one is forced to move to proxy measures to test the impact of ASAP's on alcohol-related crashes. Based on the data available to date, the most valid of these proxy measures appears to be crashes occurring during the night hours. This results from the well-defined social-drinking patterns in the United States, which limit most drinking to the evening and late hours with relatively little alcohol consumed during the day. A number of studies have demonstrated the significant increase in the frequency of alcohol-related crashes in the evening hours.

A relatively new evaluation technique just coming into widespread use for evaluating counter-measure programs directed at drinking and driving is the use of voluntary roadside surveys of noncrash-involved drivers. In this technique, survey teams randomly stop drivers who are using the roads at night and request that they voluntarily provide a breath sample for analysis of alcohol. This technique offers the possibility of measuring the number of drivers with BAC's on the road during a given period of time. By using repeated surveys, it is possible to sample the impact of an ASAP throughout its operational period.

B. Evaluation Methodology

One of the problems in evaluation design is the selection of techniques that are theoretically appropriate for the type of data and process to be analyzed. Analysis of ASAP and State accident data reveals fairly strong time dependencies in the form of annual seasonal patterns. The time dependencies indicate that a high degree of correlation exists between displaced data points, such that classical statistical techniques are inappropriate unless adjusted accordingly. Consequently in these cases, application of analysis of variance/covariance, regression, and multivariate analysis techniques are generally invalid when applied to the raw time series data.

Two methods of time series can be used to determine ultimate impact at either the project or program level. First, there are the interrupted time series analysis techniques. This type of design takes advantage of the collection of data over a long time period, to extend the analysis of crash patterns for a sufficient period to insure that competing hypotheses can be detected and evaluated. A second time series technique developed by Box and Jenkins* is a more powerful method of determining project or program impact. Unlike the interrupted series approach, which searches for either a change in level or change in slope, or both, the Box-Jenkins approach attempts to relate an input system variable to an output system variable. In this case, the ASAP program is the system and the inputs are the various countermeasures that are implemented. Performance measures describing these countermeasures are then used as the input time series to the ASAP system. More than one input variable can be used to evaluate the system. The output variable of the system is the time series of the ultimate measures associated with the ASAP program. Ideally, the ultimate measure should be alcohol-related crashes. However, proxy measures must be used in the form of night fatal crashes or single-vehicle crashes or other measures in lieu of the alcohol-related crash.

One can look at the Box-Jenkins technique as a generalized regression analysis of time series variables. Each of the input or independent variables is a time series in itself, while the output variable is also a time series. Classical regression analysis is not applicable when the data or either or both of the input and output series are time dependent or correlated. The Box-Jenkins generalized regression approach, however, can determine the dependence of each data point in a series with its own history and then determine the relationship between the independent variable time series and the dependent variable time series. This relationship between the input series and the output series is found in the development of the transfer function (i.e., how much change in the activity of the input variables can be explained in the movement of the output variable). The transfer function is generally expressed as a polynomial equation rather than a simple constant coefficient as in the case of classical regression analysis. If a transfer function can be developed, it provides in an explicit, dynamic way all of the interrelationships that exist between the variables. It can then be used as a forecasting and feedback mechanism to control the movements

*Box, G.E. and Jenkins, G.M., *Time Series Analysis: Forecasting and Control*, San Francisco: Holden-Day, 1970.

of the output variable as it relates to the input variables. The development of the transfer function requires considerable computation and calculation. The process entails modeling the input series and subtracting its effect from the output series, the residual series being the noise of the output series. The residual series is then cross-correlated with the input series to arrive at a stationary output noise series. The parameters of the noise model are identified and serve as estimates to the parameters of the transfer function.

II. OVERALL PROJECT IMPACT RESULTS—SUMMARY

A. Program Impact Results

Since most alcohol-related crashes occur in the evening and night hours, it is felt that the night fatal crash can be used as a valid measure of project or program impact. Nighttime crashes are defined as those occurring between 8:00 P.M. and 8:00 A.M. Fatal crash data reported by 21 of the

TABLE B-1. DAY AND NIGHT FATAL CRASHES OF 21 ASAP's

ASAP	Day Fatal Crashes			Night Fatal Crashes		
	Average		Percent Change	Average		Percent Change
	1969-71	1972-73		1969-71	1972-73	
Baltimore	74.0	69.0	-7	69.7	68.5	-2
Boston	35.3	35.5	1	47.7	37.0	-22
Cincinnati	36.3	35.0	-4	39.0	38.5	-1
Columbus, Ga.	8.3	9.0	8	8.7	9.5	9
Fairfax County	34.3	39.5	15	38.7	32.5	-16
Hennepin County	69.3	56.6	-18	41.7	38.5	-8
Indianapolis	31.7	23.5	-26	28.3	25.0	-12
Kansas City	38.0	46.5	22	45.3	42.0	-7
Lincoln	6.0	5.5	-8	6.0	3.5	-42
New Hampshire	89.0	73.5	-17	78.3	66.5	-15
New Orleans	50.0	45.0	-10	47.0	32.5	-31
Oklahoma City	40.7	39.5	-3	30.0	39.5	32
Phoenix	46.3	58.0	25	46.3	47.5	3
Portland, Me.	37.3	35.0	-6	32.0	18.5	-42
Pulaski County	28.7	36.0	25	18.7	18.5	-1
Richland County	30.0	27.0	-10	23.3	17.0	-27
San Antonio	43.0	45.0	5	47.0	65.0	38
South Dakota	112.0	123.0	10	91.0	104.0	14
Tampa	71.3	81.0	14	58.3	76.5	31
Vermont	18.3	25.0	37	15.7	18.0	15
Wichita	23.3	28.0	20	24.0	22.5	-6
Total	923.3	936.0	1	836.7	821.0	-2

ASAP's, broken down by day and night, appear in Table B-1. For the average of the baseline period, it appears that daytime fatal crashes were up about 1 percent, whereas nighttime fatal crashes were down about 2 percent. Similarly, night and day fatal crash data for the first eight ASAP's show an increase of 6 percent in day fatal crashes compared with a decrease of 10 percent in night fatal crashes. Corresponding data for 21 states indicate increases of 2 and 5 percent in night and day fatal crashes, respectively.

Day and night fatal crashes can be seen graphically in Figure B-1, representing all 29 ASAP's for a 2-year operational period. The day fatal crash chart (solid line) appears to be stationary in character with strong annual seasonal movement. The vertical line represents the point in time at which the ASAP program was implemented. Since the data represent quarterly activity, there are

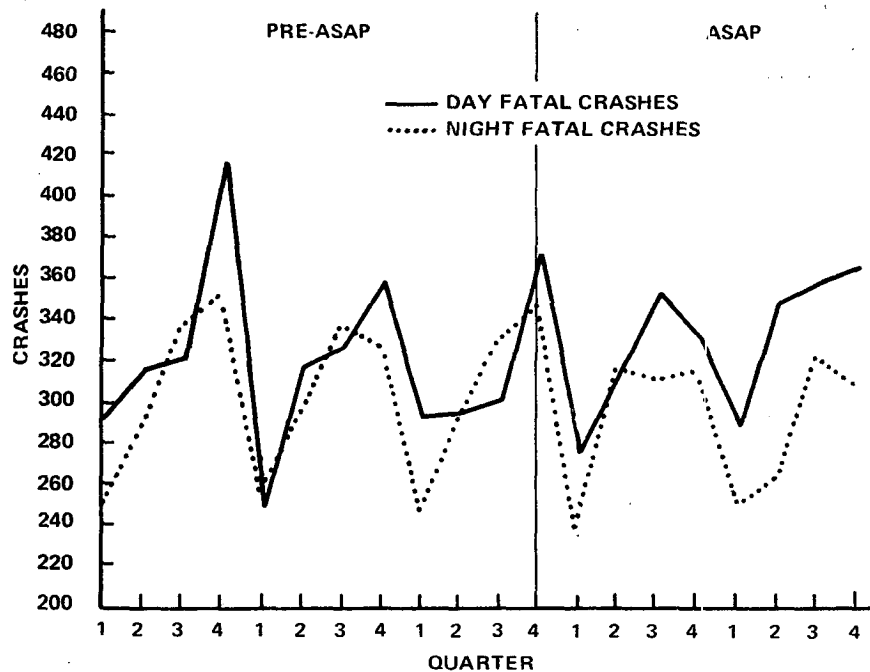


FIGURE B-1. DAY AND NIGHT FATAL CRASHES FOR ALL 29 ASAP's

insufficient numbers of data points to develop a time series model representing the baseline period for extrapolation into the operational period. However, the pattern appearing in the operational period is not dramatically different from the pre-ASAP period.

When night fatal crashes for each period are divided by day fatal crashes, the corresponding night-to-day ratio can be seen in Figure B-2. The use of the night-to-day ratio eliminates many of

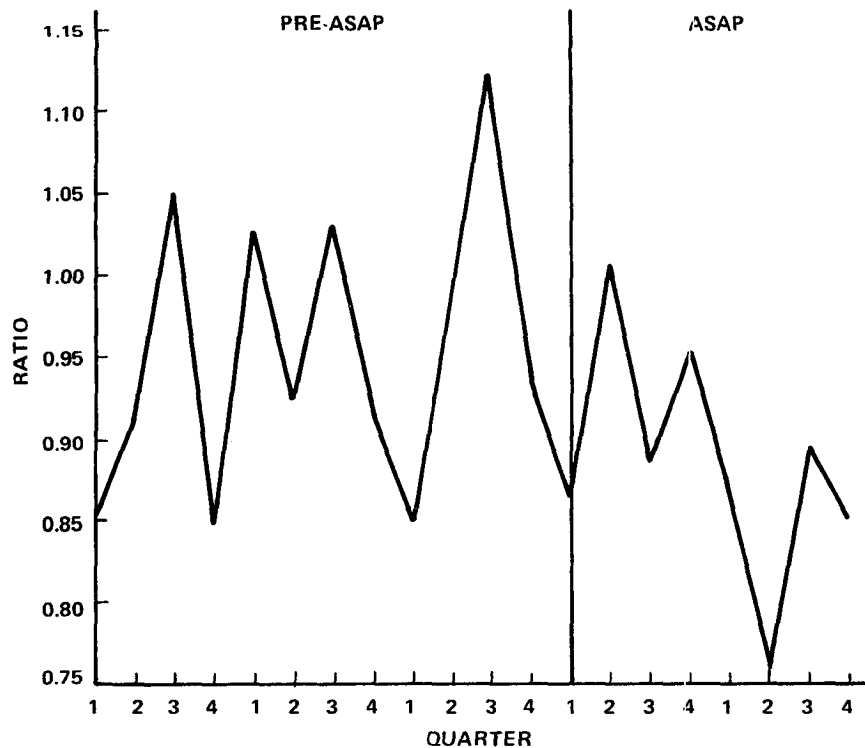


FIGURE B-2. NIGHT-TO-DAY FATAL CRASH RATIOS FOR ALL 29 ASAP's

the objections that can be found in the use of the raw data directly. Seasonal patterns may be eliminated provided both night and day fatal crash series have similar characteristics. Night-to-day ratios account for differences in project size, geographic location, urban-rural mix, and many other characteristics that might confound the results.

The night-to-day ratio in Figure B-2 appears to have decreased in the ASAP operational period as compared with the steady level in the baseline period. Because of the limited number of data points in the pre-post ASAP periods, interrupted time series as well as Box-Jenkins techniques will not produce meaningful results. However, it is appropriate to examine quarterly data for the 5-year period as one series to determine its characteristics for further analysis. Each of the sample autocorrelation values, when compared with twice the standard error value of 0.224, indicates that none of the values exceeds the two standard error value of ± 0.448 . In addition, the chi-square value of 3.49 is not significant at the 0.05 level. The conclusion to be drawn is that the sample correlation values are not significantly different from zero and since no seasonal spikes are evident, the original series (i.e., night-to-day ratio) can be considered uncorrelated.

Since the data are uncorrelated, a one-way analysis of variance can be applied to the data using all of the individual quarterly values for each of the 29 projects. A total of 592 data points were included. Three years of operational data were used for Albuquerque, Charlotte/Mecklenburg, and Denver. The F value of 3.58 for the period component of variance is statistically significant (for $p = 0.05$, $F = 3.84$).

B. Fatal Crash by Type of Crash

An analysis of fatal crash by type of crash is illustrated graphically in Figure B-3. The increases and decreases represent the cumulative difference of both operational years when compared with the latest baseline year. Total fatal crash differences for the 29 projects for the two operational years are down by 47 as compared with the latest baseline year. However, further decomposition of the data by type of crash reveals that night fatal crash differences were down 111 while day fatal crashes were up 64. Further analysis indicates that all categories of night fatal crashes were down, whereas daytime multivehicle fatal crashes were up 85.

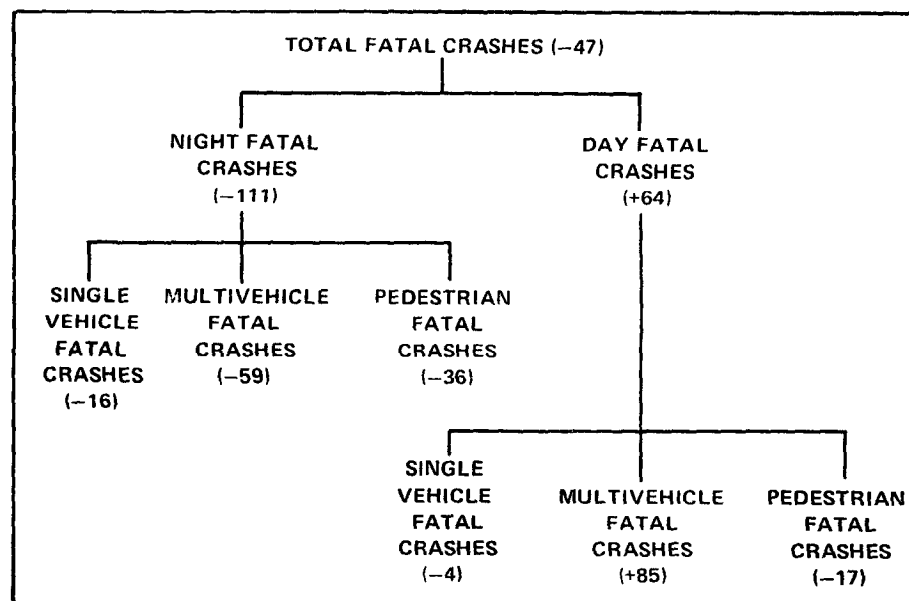


FIGURE B-3. CHANGE IN FATAL CRASHES BY TYPE OF CRASH FOR 29 ASAP's OPERATIONAL FOR 2 YEARS

C. Comparison of First to Second and First to Third Roadside Survey

Each ASAP when possible is required to conduct four roadside surveys during the life of the demonstration program. The first baseline survey is conducted prior to the initiation of operations and is then used as a basis for evaluating the succeeding annual surveys during the demonstration period. The key measure developed from the roadside survey and used in project effectiveness is the distribution of BAC level among the respondents of the surveys. The hypothesis being tested was that the number of drivers with negative or insignificant BAC's (0.01-0.04) would increase while the number of drivers at BAC's of 0.05 and above would decrease in subsequent surveys.

The BAC distributions of the second and third roadside surveys were compared with the BAC's of the first roadside survey using the Kolmogorov-Smirnov (KG) two-sample test. In this test, the cumulative percents of drivers found in each of the BAC ranges are determined in both the baseline and operational period roadside survey. The cumulative percentages for each BAC class interval are subtracted from each other, and the maximum difference is compared with the KG statistic for a given p level.

Referring to the raw data in each survey, 562 out of 865 had zero BAC in the first survey (65 percent), whereas 589 out of 822 drivers had zero BAC's (71.7 percent) in the third survey. The KG test at the $p = 0.05$ level for the difference between 65 percent and 71.7 percent shows that the results are statistically significant.

No significant decreases were found in higher ranges of the BAC distribution. However, a shifting down from the higher ranges is noted such that a greater number of drivers were found to be at the lower end of the BAC distribution. One might conclude, therefore, that the ASAP program has had an impact on the social drinker-driver but has had very little impact on the drinking driver who drives at BAC greater than 0.10.